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THE NEW UNIVERSITY HIGH SCHOOL AT THE UNIVERSITY OF MICHIGAN

For a number of years Dean A. S. Whitney, of the School of Education of the University of Michigan, and his colleagues have been urging the Board of Regents and the state legislature to provide a school where scientific studies and practical demonstrations can be carried on to show the school people of Michigan in a concrete way what the Department of Education of their state university stands for. The result is that a new building and equipment have been provided for a junior-senior high school, and the school opened in September.

The principal of the school is Raleigh Schorling, formerly a teacher in the Lincoln School, New York City, and a graduate of the University of Michigan.

The following report of an interview with the new principal indicates the purposes of the school:

To rediscover the individual, to gear down the social life of the school, to bring back a closer personal relation between pupil and teacher, to make a more vigorous drive for sound scholarship are important aims of the University High School of the University of Michigan.

Mass instruction and the democratic life of the school, Mr. Schorling believes, is a leveling process. While it challenges some of the pupils to better performance, at the same time it causes large numbers, particularly those pupils with fine ability, to be satisfied with low standards of workmanship. Probably in many cases, he added, the home makes a real fight for ideals and standards and sees its efforts undone by the school. In the new school there will be a "greater individualization," which means that each pupil will be given a load that he can carry. It is in this sense that the new school will attempt to "rediscover the individual" and by so doing bring about a more personal relation between pupil and teacher.

"Simplicity of school life" also will feature the new school. "The program of studies and the number and character of the school activities will be adjusted to attaining this end," it is declared. At the same time, "the school requests the co-operation of parents in encouraging simplicity in school dress and in those outside social events in which the University High School pupils participate."

According to a recent announcement, "the school has been created by the state to aid in improving instruction. It has been the aim to have in each department one or more teachers familiar with what progressive groups in different parts of the country are doing in the way of good practice, experimentation, and investigation. In particular, the school aims to be of help to those preparing to teach.

"This does not mean," it is added, "that a high-school class will be subjected to many different teachers throughout the year. A well-trained and experienced teacher will be in charge of each class from September to June. It is likely that two, or at the most three, Seniors will be appointed assistants to the regular teacher of each class. The modern type of recitation requires a careful diagnosis of individual disabilities and systematic records of individual performance and growth." Each teacher will have fewer classes and will be able to give more time to each pupil. To make this more feasible, the rooms have been so arranged that each teacher has a conference room right off the classroom. Also blackboard space has been cut down somewhat, and in its stead have been built bulletin boards where the teacher can keep a record of the pupils.

The school opened for the first time in September with four grades—seventh, eighth, ninth, and tenth. Tuition has been set at \$30 a year, and any pupil in the state who can meet the entrance requirements is eligible to attend. The four grades this year will be extended so that ultimately the school will consist of a junior and senior high school. Pupils now being admitted to the tenth grade will be carried through the eleventh and twelfth grades and will become the first graduates in 1927.

Pupils will be assigned to classes on three bases. First, the previous school records; second, a personal interview, and third, the score on an achievement test. These tests, it is explained, are not used for selective purposes but to throw light on previous school achievements.

Perhaps the most outstanding room in the school building will be the new library which is two stories in height. Special attention has been given to this room "in recognition of the growing importance of the school library in secondary education."

On the first floor of the structure will be a large assembly room, laboratories, and shops. The second floor will house the library, classrooms, printing shop, and exercise room. On the third floor will be found the gymnasium, classrooms, drawing rooms, and rooms for the commercial department. Cooking, serving, and sewing rooms for girls, the school lunchroom, more classrooms, music rooms, and the laboratory of the School of Education will be on the top floor.

But the building is not the determining factor. "The teaching staff of the school is the vital issue," declares Mr. Schorling, who adds that every effort has been made to secure teachers who are either recognized as leaders in their fields or who have shown unusual ability while still young in the work.

THE TEXAS SURVEY

The report of the staff of the Texas Educational Survey, which has been at work during the past year under the direction of Professor George A. Works, was completed and submitted on August 31, 1924, to the commission which will, in turn, prepare a series of recommendations for educational legislation and present them to the next legislature.

The section of the survey report devoted to secondary education is divided into three parts, dealing, respectively, with the junior high school, the junior college, and the high school.

Texas has very few junior high schools. The notable exception to this statement is the conspicuous experiment which was launched in San Antonio last year of putting the whole city school system on the 5-3-3 basis at one stroke.

The reason for the absence of junior high schools is in part the organization of the elementary schools, which include throughout the state only seven grades. Another reason is the uniform free textbook system, which makes it impossible at present for a single school system to experiment with the curriculum of the junior high school without incurring locally the expense of purchasing books.

In spite of these inhibiting reasons and in spite of the opposition of some of the leading school men of the state to the organization of junior high schools, a number of cities besides San Antonio are opening such schools. Houston, which was one of the pioneers in the

junior high school movement, reports that it plans a vigorous reorganization of its existing schools.

The junior-college movement has made some headway in Texas. The city of El Paso, because of its isolation, has developed a college in connection with its high school. The same step has been taken in three of the eastern cities of the state, and the Agricultural and Mechanical College has two branches which are supported by the state under the official classification of junior colleges. There are fourteen private junior colleges.

The survey report calls attention to the importance, at this early stage in the development of a state system of junior colleges, of establishing standards. Junior colleges should be organized only where communities are large enough to support them without encroaching on the public funds needed for the lower schools and also large enough to supply an adequate student body. The maintenance of standards of scholarship higher than those expected of high-school classes is also vigorously urged.

In the section of the report dealing with the four-year high school attention is called to the inadequate training of teachers, the inadequate provision for supervision, and the highly conservative character of the curriculum.

The last item is perhaps the most significant. The figures for the number of pupils in various courses show that the registrations in the traditional subjects—algebra, Latin, and ancient history—far exceed the registrations in the sciences, modern languages, and modern history.

Commenting on the curriculum and the high degree of elimination of students, the report makes the following statements:

A study of these figures shows the very rapid rate at which pupils drop out of school just before and just after the high schools try to administer the freshman series of studies made up largely of algebra, ancient history, and composition. The figures of withdrawal speak very eloquently of the judgment of Texas young people about the highly academic and conservative offerings of the Texas high schools. The pupils do not want what is offered to them, and therefore they leave school. In the small schools the dropping out is greater than in the large schools.

It is difficult to make any pointed recommendations with regard to these matters. The division of the state department which is charged with the

supervision of the high schools ought to open up a general consideration of the high-school curriculum in the state. Probably this division, even if it took up the matter vigorously, would encounter a great deal of conservatism because of the attitude of many parents and of the institutions of higher learning. Local boards of education made up of citizens who can see that science is at least as important as algebra and that literature is at least as important as composition may be aroused by the foregoing statement to ask some pointed questions about their high schools. Possibly the school people of the state can be induced to canvass the newer literature on the curriculum and to realize that something ought to be done to reduce the absurd emphasis on ancient history, composition, and algebra. In the matter of the high-school curriculum, Texas needs an awakening.

One further series of facts presented in the report is of general interest. In the great majority of Texas high schools the principal is a teacher. Data relating to the duties of the principal were collected on questionnaires sent to superintendents and principals. Two tables may be quoted. The first reports statements from superintendents referring to 243 principals.

WHAT ARE THE FUNCTIONS OF THE PRINCIPAL OTHER THAN TEACHING?

Supervision	83
Maintaining discipline	69
Coaching	41
Supervising the keeping of records and reports	33
Takes the superintendent's place in his absence	24
Supervision of buildings and grounds	20
Makes schedules and programs	19
Has direct charge of the high school	18
Administration	15
Supervises study halls	10
Attends to problems of attendance	12
Routine	8
Extra-curricular activities (supervision of)	9
Helps plan the curriculum	6
Assigns duties to teachers	3
Supervises play	9
Has advisory or consultative functions	9
Prepares the yearly report	3
Assists the superintendent	5
Has no other functions	17
No answer	16

The answers made by the principals to the question regarding their activities confirm in general what was reported by the superintendents. The principals' statements are as follows:

WHAT SUPERVISORY DUTIES DO YOU PERFORM?

None or very few.....	53
Classroom visitation.....	41
Discipline.....	40
Playground and building.....	31
"General supervision".....	28
Athletics or play.....	17
Study hall.....	14
Reports and records.....	14
Serves in absence of the superintendent.....	9
Departmental supervision.....	9
Student activities and publications.....	9
Conducts teachers' meetings.....	8
Delegates responsibility to others.....	5
Assists the superintendent.....	4
Conducts teacher-training course.....	2
Miscellaneous, such as examinations, commencement, younger teachers, etc.....	4
No answer.....	16

THE CLASSICAL ISSUE IN FRENCH SECONDARY SCHOOLS

Last year the then minister of education in France restored required classics in the secondary schools of that country. It was prophesied by the friends of the modern languages and the sciences that this move would greatly reduce attendance in the first year. The contrary proved to be the case. More pupils registered in the entering classes than ever before in the history of the schools. The friends of the classics were jubilant both in France and in this country.

This year there is a new minister, and once more the question is raised whether the Latin requirement is desirable. The very influx of students which the classicists welcomed has operated to raise the question whether Latin is universally desirable. In France, as in this country, a large registration means an importation into the school of individuals of varying capacities and varying needs. To meet the diverse demands thus created there will doubtless have to

be a relaxation in the rigid uniform requirement which was brought back into the French schools in 1923. The progress of the discussion is told in an article by a special French correspondent published in a recent issue of the *Christian Science Monitor*.

The program submitted by M. François-Albert, minister of public instruction, to the Superior Council of Public Instruction, is of primordial interest, since it brings up again the question of reform of secondary studies. It concerns the modification of the decrees of May, 1923, which enforced in the *lycées* and *collèges* the application of the reform elaborated by M. Léon Bérard, then minister of education.

After a hard fight and interminable discussion, M. Léon Bérard succeeded in re-establishing the obligatory study of Greek and Latin in *lycées* and *collèges*, which had been abolished in 1902 by M. Leygues. M. François-Albert now wants to resuscitate the régime of 1902.

M. François-Albert considers that the *lycées* and *collèges* must offer to the parents the means of giving their children either a "classical" formation or a "modern" formation; it is for them to choose. "I have a profound cult for the classical studies," said the minister. "I believe in the superiority of such studies. The question is for me whether, because they are superior, they must be obligatory. Truly I do not think so. The clientèle of the *lycées* has increased with the progress of studies, with the respect for culture. But it has increased under such conditions that it does not appear to me possible to confine this enlarged clientèle within the bounds of classical studies."

One of the criticisms of M. François-Albert about the reform of 1923 is that it seems to have confounded general culture with encyclopedical knowledge.

"The reform of 1923, indeed, comprises an equal quantity of classical culture, of scientific formation, and of what I might call cosmopolitan formation of the mind by the study of living languages. I do not believe that it is possible between the ages of eleven and sixteen or seventeen to give the brains of children a scientific formation and a really solid classical culture; it can only be a superficial varnish and an adaptation to the ways of modern civilization."

It appears to M. François-Albert that the programs have had in view only brilliant pupils. To add to the scientific and humanist initiations a course in modern languages is asking too much effort. All these arguments, the minister believes, are accepted by the parents and are made in the interests of their children. But he regarded the question also from the point of view of the interests of the country.

"It is a mistake to consider the *enseignement moderne* as inferior to the *enseignement classique*. I do not want a difference of degree to exist between these two forms of teaching. I want to replace Latin and Greek by other studies which shall be just as educative, but in a different manner, by something which, while shaping the mind and intelligence of the child, can give him practical knowledge which may be useful in his future.

"I desire also that the form of teaching shall be conceived in such a way that it will direct the pupils toward careers other than liberal professions. The *lycées* and *collèges* of yesterday formed either functionaries or idle rentiers. But today the *lycées* have not for exclusive mission the formation of functionaries. They must produce industrialists, business men, men for all the domains of activity other than the purely intellectual or purely administrative domains."

After having criticized the secondary teaching in its actual form, the minister declared that he had not come before the Superior Council with a definite program of *enseignement moderne*. "I have only come to ask your advice about the resurrection of the Sixth Form B (that is to say, the section where Latin and Greek were not obligatory in the programs of 1902). This resurrection has in my eyes a symbolical value. It seems to me to be the first stone of the new edifice I wish to build beside the other and leave to my successors. I am conscious of ministerial instability, but I am desirous, nevertheless, to leave behind me something which will urge my successors to follow the way I have indicated."

A STUDY OF THE EFFECT OF ENVIRONMENT ON INTELLIGENCE

The evidence concerning the relative importance of heredity and environment has commonly been of an indirect sort and has been somewhat difficult to interpret. We are much in need of a crucial experiment in the matter or at least of a type of evidence which will resemble that which might be gained by means of a crucial experiment. Such an experiment would enable us to isolate and measure separately the effect of each of the two factors. Something corresponding to an experimental isolation of the two factors occurs in the case of the child who is adopted in infancy and is placed in an environment which is radically different from that in which he would have lived if he had remained in his own family. In this case the effect of environment may be measured by comparing the intelligence-test score of the child adopted in infancy with the scores made by his brothers and sisters by blood. The effect of heredity, on the other hand, may be measured by comparing the score of the adopted child with the scores of the children in the family into which he has been adopted, if there are such children.

It is proposed to gather statistics on this matter and to make tests of all available cases of the kind which has been mentioned. Will the readers of this note send to Frank N. Freeman, University of Chicago, the names of persons who have adopted children in infancy and who might be willing to co-operate in this study?

THE WISCONSIN MANUAL FOR HIGH SCHOOLS

The State Department of Public Instruction of Wisconsin has issued a manual of 194 pages for the guidance of the high schools of the state. It was prepared by J. T. Giles, H. W. Schmidt, and S. M. Thomas, state high-school supervisors.

The major part of the book is devoted to a detailed discussion of the subjects to be included in the curriculum. References to books to be used in each subject are given, and a general statement of the purposes and organization is presented.

The twenty-six pages which precede the discussion of the curriculum and immediately related topics contain numerous suggestions with regard to the organization of high schools, some of which will command immediate acceptance, others of which are likely to be questioned by many high-school principals.

An example of the latter type of suggestion is as follows:

The abandoning of a numerical rating system will largely eliminate the very unsatisfactory practice followed in many school systems of awarding valedictory and salutatory honors on the basis of scholarship. Standards of marking vary with different teachers and even with the same teacher unless marks are computed on an exact mathematical basis. Competition for honors often promotes unsocial attitudes and appeals to undesirable motives. As a substitute for such a system there may be an honor roll, say of all pupils who have received a rank of excellent in at least ten units of work. By such a plan antagonistic competition will be eliminated and friendly and helpful co-operation and emulation substituted.

A word of warning with regard to athletics is less likely to be widely questioned:

The attention of high-school principals and boards of education is called to the growing tendency to schedule too many athletic contests during the mid-week. Such procedure often interferes greatly with the regular work of the school. Letters from some communities raise the question whether or not the taxpayers' money is being spent for a school with athletics as its main purpose. Principals and school boards should guard against such criticisms.

Another matter on which practices differ but on which the manual gives sound advice is the following:

Four prepared subjects or their equivalent is generally accepted as the subject load per day that a high-school pupil can properly carry. Only in the case of pupils who, through superior class work in a given school and by standard tests, *show superior ability* should permission be granted to handle more than four full-time subjects. Occasionally a Senior may be permitted to carry a

fifth subject for graduation. To allow pupils promiscuously to attempt to complete the work in three years by carrying five subjects from the time of entrance has a tendency to lower the standard of work in a school. Whenever permission is granted to carry extra work, it should be with the understanding that good work shall be done, and should the work fail to be of such standard the additional subjects should be dropped.

Except in the case of a Senior planning to graduate, the fact that the pupil failed in some of his work the preceding year should make it all the more necessary that he demonstrate his ability to carry four subjects successfully. The highest success of other pupils in his class may be jeopardized by his inability to make progress. A careful following of these suggestions should improve scholarship standards.

Enough has been quoted to illustrate the positive tone of the book and its usefulness as a guide in the administration of high schools.

HIGH-SCHOOL ATHLETICS

In a vigorous article published in the *Harvard Alumni Bulletin*, William H. Geer, director of physical education at Harvard, points out one of the conspicuous evils of high-school football as follows:

It is difficult to find a single argument to justify pre-season coaching of high-school football teams. Many things might be said against such training. As far as the writer has been able to observe, the individuals who sponsor pre-season coaching have a mania for longer schedules, the winning of championships, and larger gate receipts. Unless all of the high-school teams in any competitive unit have an opportunity to secure pre-season coaching, there is a direct violation of the spirit of fair play. Furthermore, as soon as we admit the necessity for such training, we magnify the importance of football and deliver the game into the hands of those who are willing to make it the major business of the school.

The high-school season is, under normal conditions, almost a month longer than the college season. The pre-season coaching in colleges, where it exists, comes some time after the official opening of the high school. Today, the trend in colleges, and it is a wholesome one athletically speaking, is to reduce or eliminate entirely pre-season coaching. Princeton, Yale, and Harvard, by mutual agreement, have restricted such coaching to one week before the opening of college. Other institutions are adopting a similar practice. In other words, the college football squad will not be called together until about two weeks after the date for the official opening of most high schools. With such a procedure in the colleges, it is a sorry spectacle to see the members of high-school football squads called together two or more weeks before the opening of school—that is, the last of August, or one month before the college players begin training.

The practice of pre-season football coaching was so prevalent last fall in the schools about Boston that it called forth unfavorable editorial comment in several of the daily papers. . . .

A corollary of pre-season coaching is the playing of post-season games. This evil became so pronounced last fall in the New England district that certain schools insisted on prolonging the football season until two and even three post-season games had been played. Some teams played three strenuous games in ten days. Contests were scheduled and played at such a late date—about one month after the close of the regular season—that the sports editor of one of the Boston papers was moved to remark that “it is time to ring down the curtain.”

In analyzing the situation, one finds a variety of factors contributing to this very unwholesome condition in secondary-school athletics. The mania for championships, the opportunity for cross-country jaunts, the need of funds to reward members of teams by sending them on “educational expeditions” to distant cities, and agreements to give coaches a percentage of the gate receipts at the post-season games, all combine to create a condition that, if permitted to continue in New England or any other section, will soon sound the death knell of high-school football.

When the situation gets so bad that high-school principals, either of their own accord or under pressure from the alumni and so-called supporters of high-school athletics, arrange post-season games, contrary to the better judgment of both players and coaches who say it is time to quit, and when heads of schools send challenges for post-season games to institutions in sections that are far removed, one is prompted to ask, “What next?”

Mr. Geer also comments on other dangers, such as the desire for championships, the excessive expenditures requiring large gate receipts, and the growth of an abnormal desire to have a winning team. All of these are, to Mr. Geer’s mind, symptoms of a fundamental difficulty which he describes in the following terms:

It is a failure to uphold the principles of institutional control of, and responsibility for, interschool competitions so that athletic activities may be maintained on a high plane, and efficient use may be made of sports in character-building.

It is always easier to point out dangers than to devise methods of avoiding them. Mr. Geer has some confidence in organization as the best remedy for existing evils. Organization does not seem to have accomplished anything, however, in many quarters where it has been tried. What is needed is organization plus strong leadership and what Mr. Geer calls “institutional control.” This leaves the issue at the door of the principal. One of the first duties of this

officer is to determine the spirit of his school and to see to it that this spirit is strong enough to resist the evil tendencies which Mr. Geer has pointed out.

LECTURES IN HIGH SCHOOLS ON CIVIC PROBLEMS

Charles F. Carter, of the New York Central Railroad, delivered a lecture on railroads last year in one of the civics classes of the East High School of Rochester, New York. The lecture has been mimeographed and will be used as part of the text material for the course in civics with subsequent classes.

The lecture illustrates one way in which very useful information can be imported into the schools through the co-operation of citizens who are able, because of their positions in industrial and commercial corporations, to secure material which is not ordinarily found in textbooks.

Referring at one point to the history of railroading, Mr. Carter contributed the following facts:

The whole history of the railroad has been epitomized right here in our own state of New York and at Rochester's front door. No doubt, many of you boys and girls saw the locomotive "DeWitt Clinton" and its quaint old coaches, exactly like those drawn by horses, when the Service-Progress Special train of the New York Central stopped here last summer.

The DeWitt Clinton was the first locomotive to turn a wheel in New York. Its first trip was from Albany to Schenectady on August 8, 1831. It wasn't much of a railroad journey as such things go in 1924, but the consequences at that early time were tremendous. People's imaginations were fired. They wanted railroads, and they wanted them right away. Rochester was as keen for railroads as the rest. But it was a dozen years before Rochester was in communication by rail with Albany and Buffalo.

The line was made up of eight separate railroads, so that the traveler had to change cars seven times in making the journey between Albany and Buffalo. Changing cars seven times in a journey of less than three hundred miles was rather strenuous, wasn't it?

The first railroads were very small because money in those primitive days was scarce and hard to get. Railroad promoters thought that they were doing well to build a line thirty or forty miles long.

But that period did not last long. In 1853 an event took place in New York which marked an epoch in the history of the railroad and started Rochester on the high road to prosperity. That was the first important railroad consolidation by which the eight little railroads constituting the route between Albany

and Buffalo and two other little railroads were united under a single management as the New York Central Railroad.

To state the matter more plainly, by the time the railroad in New York State was old enough to vote, people had learned that the only practicable way to provide the kind of transportation the country needed to enable it to develop was through the medium of big corporations. That may seem plain enough to you boys and girls of 1924, but the very idea alarmed your grandfathers seventy years ago. They were dreadfully afraid of "monopolies." So great was the fear of "monopolies" that this historic first important railroad consolidation set the country in an uproar, although the capitalization involved was only twenty-three million dollars, a sum which is regarded as small change in these billion-dollar days.

There are other interesting passages in the lecture. It is not the purpose of this note to reproduce the content of the lecture, however, but to call attention to the method which it illustrates of giving citizens an opportunity to contribute to the schools and pupils an opportunity to see current issues through the eyes of those who are well informed because they are vitally interested.

THE FUTURE HIGH SCHOOLS OF CEDAR RAPIDS, IOWA

The Board of Education of Cedar Rapids, Iowa, was confronted with the problem of expanding its high-school plant and decided early in 1924 to have a survey. It employed members of the Department of Education of the State University of Iowa and later published a pamphlet of ninety-eight pages giving to the citizens, through a series of maps, tables, and explanations, the grounds for the policy which was finally adopted.

The survey covers all of the school-building needs of the city for the next fifteen years. The kinds of facts which were made the basis of the recommendations of the surveyors are indicated by the section relating to high schools. This section is quoted herewith and will give a clear notion of the methods employed by the investigators, even though the concrete materials referred to in the text are not reproduced.

Estimated enrolment in Grades X to XII, inclusive, shows 2,550 children for the year 1940. At the present time approximately 79 per cent of the high-school pupils in Cedar Rapids are housed in the Washington High School. The balance of these pupils are enrolled in the Grant High School, which was opened in 1915 as a vocational high school. The extensive development of

commercial and industrial activities in the center of the town spreading in all directions, the fact that it seems quite likely that Cedar Rapids will always be somewhat bisected by railway trackage and the river, coupled with the fact that present tendencies of growth are definitely about the edges of the present corporation, have all operated practically to force the establishment of two high-school centers. Plate XVII shows the location of the present high schools. Plate XVIII shows the manner in which the complete district will be served by the high schools located as shown in the ultimate plant. In the location of these sites for the future, careful attention has been given to the probable ultimate center of pupil population (Plates XIX, XX, and XXI). Careful consideration has also been given to the question of transportation (Figure D, Appendix).

The site proposed for the new east-side high school is east of 1st Avenue and between 20th and 23d Streets. This is excellent, well drained territory in which a site of at least twenty acres may be secured at a nominal cost. There are two possibilities with regard to the development of the west-side senior high school plant. The first involves the expansion of the present Roosevelt site to accommodate a senior high school, while the second implies the development of a new high-school center directly south of the present Cleveland School. A study of the trend of school population indicates that the latter site will probably best meet the future senior high school needs of this portion of the city. It is therefore recommended that a suitable site for the development of such an ultimate senior high school plant be procured at this location.

THE TREND OF REORGANIZATION IN HIGHER EDUCATION. I¹

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Claims for the junior college touching the reorganization of higher education.—In any complete catalogue of claims made for the junior college are to be found several having more or less intimate bearing on the organization of secondary and higher education. Among these are: placing in the secondary school all work appropriate to it, fostering the natural evolution of the system of education, and making possible real university functioning. The implications of such claims are so far-reaching that no study of the junior-college movement making any pretensions to comprehensiveness could escape criticism if it neglected to inquire into their validity. A partial canvass of the acceptability of these claims is the concern of this article, the plan being to disclose evidences of the reorganization which seems destined to assign to the junior college a logical place in the school system. These evidences are presented as pertaining to the problem of reorganization as a whole rather than to the validity of each particular claim as stated.

Far-reaching reorganization of higher education has come upon our secondary and higher schools so gradually that there is little general consciousness of its profound character and extended ramifications. Indeed, some of those who are presumably leaders in the field still seem to be totally unaware of it or, if they see it, unappreciative of its forces, are, King-Canute-like, endeavoring to command its tides to recede. They appear by their attitude to assert that the American college is today what it has always been and that it is ordained to remain immutable in the future. The facts presented render such assumptions untenable and do much

¹ This series of articles presents in brief the findings of Part III of *The Junior College* (Research Publications of the University of Minnesota, Education Series, No. 5), the report of a study carried forward under a subvention from the Commonwealth Fund.

to strengthen the claims of the friends of the junior college as to its place in reorganized secondary and higher education.

Ages of college Freshmen a hundred years ago and today.—The age of students attending college is an important consideration in evaluating the assumption that the American college has undergone little or no change since its establishment in the colonial period and remains today essentially what it has always been. Information is available which indicates that during the later decades of the last century students entered college at more advanced ages than during the first third of the century. Even as late as 1851 a writer in the *North American Review*¹ speaks of boys entering college at fifteen or sixteen years of age and their need of parental discipline while in attendance. There are other scattered evidences of advance in the age of college Freshmen, but up to the time the present investigation was undertaken there was no study which could be considered at all comprehensive.

Desirous of securing as nearly complete a description as possible of this advance in the age of college Freshmen by a standard method of computing ages in order that the results of all comparisons would be valid, the writer obtained access to the records of admission to Harvard College for a period near the opening of the last century and at periods two or three decades apart up to 1916. The median age for students entering this institution advanced in the half-century beginning about 1830 and ending in 1880 from 16 years and 3 months to 18 years and 7 months, an increase of two and one-third years. From 1880 to 1916 there was a decline but not sufficiently large to warrant anticipation of any significant change in this respect for some time to come. The typical Harvard Freshman of a century ago was fully two years younger than the Freshman of the more recent period.

The situations as to the ages of the Freshmen in other older colleges in the early part of the nineteenth century had one essential element in common with the situation at Harvard. All of the distributions show large proportions of students entering at from 11 or 12 to 16½ years of age, as shown in Figure 1. Thus,

¹ George H. Whitney, "Wayland on College Education in America," *North American Review*, LXXII (January, 1851), 82.

almost one-fifth of Amherst's Freshmen during the years 1827-31 were $15\frac{1}{2}$ years of age or younger, and almost one-third were $16\frac{1}{2}$ years of age or younger. Almost one-third of Bowdoin's Freshmen during the years 1810-17 were $15\frac{1}{2}$ years of age or younger, and between two-fifths and one-half were $16\frac{1}{2}$ years of age or younger. Even in Dartmouth, where the Freshmen during the years 1800-1804 were, on the average, somewhat more mature than the Freshmen in other colleges, one-sixth were $15\frac{1}{2}$ years of age or younger, and more than one-fourth were $16\frac{1}{2}$ years of age or younger.

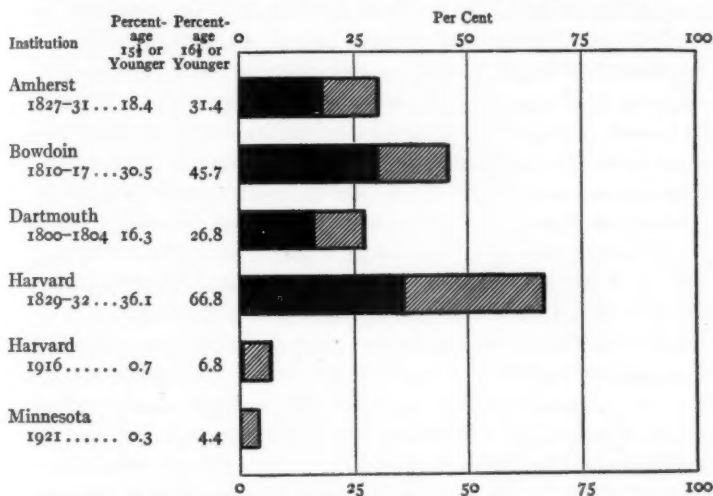


Fig. 1.—Percentage of Freshmen entering five institutions at various periods who were $15\frac{1}{2}$ years of age or younger and $16\frac{1}{2}$ years of age or younger.

The marked contrast of these situations with the situations today in our modern institutions of higher education can be illustrated in the cases of Harvard and the University of Minnesota. In the case of Harvard the percentage of students entering at $15\frac{1}{2}$ years of age or younger in 1916 was practically negligible, being only .7 per cent, while those $16\frac{1}{2}$ years of age or younger constituted only 6.8 per cent of the whole group. In the case of the University of Minnesota the corresponding percentages are very similar, being .3 per cent and 4.4 per cent, respectively. Almost

negligible proportions of Freshmen enter college today at the immature ages at which they were admitted a century ago.

What these facts must mean.—Thus we find that these early distributions of the ages of the entering Freshmen have at least one characteristic in common—they show large proportions of students beginning what was regarded as college work a hundred years ago at a much earlier age than that at which the present college and university Freshmen enrol. At least with respect to the age of the student body there is an outstanding difference between the college of the past and the college of the present.

Biographers of our earlier poets are accustomed to point out, sometimes as though it were an indication of extraordinary precocity, the early ages at which these poets entered college. Emerson and Lowell, it is reported, entered Harvard as Freshmen when they were fourteen and fifteen years of age, respectively. Bryant and Longfellow were admitted to college as Sophomores when fifteen years old, the former at Williams and the latter at Bowdoin. These ages, while not exactly typical for their generation, were sufficiently common to detract measurably from the feeling of awe which they inspire in the minds of those unacquainted with the facts.

The widening scope of the requirements for admission.—It would be surprising, indeed, if the advancing age of the college entrant were not accompanied by an increasing amount of educational content required for admission. Such a tendency impresses one most when one attempts a summary of the changes which have taken place during the last hundred years in the requirements for admission to college. The nature of the changes must, as in the case of the study of the ages of college entrants, be shown by reference to eastern institutions which have maintained continuous existence throughout at least a century. They will be illustrated for Amherst and Yale, which, on account of the large extent of similarity of the New England colleges in this respect, may be looked upon as typical.

Throughout most of the nineteenth century the requirements in the classical languages for admission to college, although experiencing some change, were characterized by relative stability. Preparation in both Latin and Greek was prescribed in the twenties

and thirties. In fact, the only prescriptions for college entrance outside of these fields were, as will be seen later, in such subjects as are now typically found only in the elementary school, namely, arithmetic, English grammar, and geography. Near the end of the first third of the century the content in which examinations for college entrance were set was Latin grammar, Sallust or four books of Caesar's commentaries, the orations of Cicero, Virgil, and Latin prosody. By the end of the century Sallust had given way entirely to Caesar, and Yale had made a prescription of Ovid's *Metamorphoses*. During this period the *amount* of classical material read had diminished to some extent, as in the number of Cicero's orations and the range of content selected from the *Aeneid*, the *Bucolics*, and the *Georgics*, but there seems to have been no marked change in this respect.

In Greek, the prescription in grammar was, of course, persistent throughout the period, but the particular content read shifted considerably from the religious to the secular, as is shown in the change in the requirements from the Greek Testament to the *Anabasis* and the *Iliad*.

A careful estimate of the prescriptions in these languages in terms of present-day requirements places their total at something like seven or eight units, not far from one-half of the number of units required at the present time for admission to college.

The real changes in the requirements for admission during the period considered were outside of the field of the classics. As shown in Table I, the only subject prescribed for examination by Yale in 1822, in addition to these classical materials, was arithmetic. By the middle of the next decade examinations in two more present-day elementary-school subjects—English grammar and geography—were added to the entrance requirements. They persisted as requirements until near the close of the century. The first subject now typically of high-school grade, in addition to the work in ancient languages, to make its appearance is what we refer to as elementary algebra, and this prescription was imposed during the forties. By the end of the next three decades the prescription in this subject had been extended to include essentially what we designate as higher algebra. Before this extension was made, plane geometry

(Euclid) had been prescribed, so that by the end of the nineteenth century the equivalent of two and one-half units of supra-arithmetical mathematics was required where none had been prescribed at the opening of the period under consideration. Upon the heels of algebra and geometry came subject after subject, until at the end of the century, in addition to the prescriptions in the classics, there were prescriptions in algebra through quadratics, plane geometry, ancient history, French or German, and English literature.

TABLE I

REQUIREMENTS FOR ADMISSION TO COLLEGE IN SUBJECTS OTHER THAN THE CLASSICS FROM 1822 TO 1900*

Subject	Date of Issue of Catalogue†									
	1822	1835 1834	1841 1842	1850 1850	1858 1860	1871 1870	1879 1880	1890 1890	1900	
Arithmetic.....	Y	A, Y	A, Y	A, Y	A, Y	A, Y	A, Y	A, Y	A, Y	.....
English grammar.....		A, Y	A, Y	A, Y	A, Y	A, Y	A, Y	A, Y	A, Y	.....
Geography.....		A, Y	Y	Y	Y	A, Y	A, Y	A, Y	A, Y	.....
Algebra to quadratics.....				A, Y	A, Y	A, Y	A, Y	A, Y	A, Y	.....
Algebra through quadratics.....							Y	A, Y	Y	.....
Euclid or plane geometry.....					Y	A, Y	A, Y	A, Y	Y	.....
Ancient (classical) geography.....						A	A			.....
Roman history.....							Y	Y	Y	.....
Greek history.....								Y	Y	.....
Roman antiquities.....							A			.....
Ancient history.....								A		.....
French.....							A			.....
French or German.....								A, Y	Y	.....
English literature.....								A	Y	.....

* A means Amherst; Y means Yale.

† The first date in each case refers to the catalogue of Amherst; the second date, to the catalogue of Yale.

These changes, when put in quantitative terms and when only the work now regarded as appropriately of secondary-school grade is considered, constitute an increase of from seven or eight to fourteen or fifteen units, now typically fifteen or sixteen. This means that the amount of work prescribed for admission to college was at least doubled during the period of a century; that is, at least two more years of liberal education are being required for admission to college now than formerly. This conclusion is in harmony with the advancing age of the college entrant already demonstrated but cannot do justice to the extension of typical general education

preliminary to college training afforded in the rapid expansion of the elementary school during the same period.

The downward trend of the materials of the college curriculum.—Intimately related to the widening scope of the college-entrance requirements is the downward trend of most of the subjects which have found a place in the standard college curriculum during the last hundred years. This downward tendency becomes evident during even a cursory examination of the curriculum of any one of the older colleges as set forth in the catalogues issued during

TABLE II
YEARS IN WHICH CERTAIN COLLEGE SUBJECTS WERE GIVEN IN AMHERST,
WILLIAMS, AND YALE AT INTERVALS FROM 1825 TO 1920*

Subject	Date of Issue of Catalogue					
	1825	1845	1865	1885	1905	1920
Homer.....	1, 3	1, 1, 1	1, 1, 1	1, 1, 1	1, 1, 1	1, 1, 1
Beginning French.....	3	2, 3, 3	2, 3, 3	2, 3	1, 1, 1	1, 1, 1
English grammar.....	1, 1	1				
English literature.....			3, 4, 4	2, 3, 4	1, 2, 2	1, 1, 2
Arithmetic.....	1, 1, 1					
Elementary algebra.....	1, 1, 1	1, 1, 1	1, 1	1		
Trigonometry.....	2, 2, 2	2, 2, 2	1, 1, 2	1, 1, 1	1, 1, 1	1, 1, 1
Analytic geometry.....		3	1, 2, 2	2, 2	1, 2, 2	1, 1, 1
Physics or natural philosophy....	3, 3	3, 3, 3	2, 3, 3	3, 3	1, 2, 2	1, 1, 2
General chemistry.....	3, 4	3, 3, 4	3, 3, 3	2, 2, 4	1, 1, 2	1, 1, 2
Zoology or natural history.....	4	3, 4, 4	3, 3, 4	2, 3, 3	2, 2	2
Geology.....	4	4, 4	3, 4, 4	3, 4, 4	3, 3, 3	2, 3
Mental philosophy or psychology..	4, 4	4, 4, 4	4, 4, 4	3, 4	2, 3, 3	2, 2, 3
Economics (political economy)...	4	3, 4, 4	3, 4, 4	3, 4, 4	2, 3, 3	2, 2, 3

* The figure "1" means that the subject was listed for Freshmen; the figure "2" means that the subject was listed for Sophomores, etc.

any considerable period of years beginning with the early decades of the nineteenth century.

A systematic inquiry concerning this depression of courses from upper to lower college levels was made for three of our oldest and best institutions—Amherst, Williams, and Yale—from which only illustrative extractions are made for our present purpose (Table II). The ancient languages and literatures are the only fields in which there was no consistent downward trend. The history of the placement of beginning courses in modern language shows marked downward movement. After having been in most

cases sophomore and junior offerings in the thirties and forties, these dropped to typically freshman levels by the opening of the twentieth century. The first course in the history of English literature changed from a junior and senior offering of the sixties and seventies to a predominantly freshman course in recent years. Trigonometry, which was a standard sophomore course in 1825, is now curricular material for first-year students, while all other courses in mathematics have shifted downward, those preceding trigonometry continuing their downward movement into the secondary school. The sciences, too, joined the downward trend; courses like physics (natural philosophy) and general chemistry, after having been junior and senior work in the twenties and thirties, became available to Freshmen in the later period. Even philosophy, ethics, logic, and economics (political economy) joined the downward movement but did not drop as far as the sciences. Many courses dropped even farther in universities, especially those of the state type, for the reason that they are needed as preprofessional work, which is a matter of greater concern in these institutions than in institutions like separate colleges, some of which cling tenaciously to the hope of providing only liberal training throughout the four-year period.

It is obvious that the shift described could not and did not stop at the freshman year of the college. The depression of course materials into secondary-school offerings has already been foreshadowed in discussing the widening scope of college-entrance requirements. The subjects added to prescriptions for college entrance—English grammar, geography, arithmetic, algebra through quadratics, plane geometry, ancient history, French and German, and English literature—were all inheritances from college curriculums. The first three subjects continued their downward course until they reached the elementary grades. Most of the other courses have found a place in the first two years of the four-year high school.

Nor does this complete the narrative of the downward progress of courses formerly peculiar to the college. Many other courses, some less often honored by a place among those prescribed for college admission, either accompanied those named or followed them in

due course, among them being rhetoric and composition; such courses in mathematics as solid geometry and trigonometry and occasionally college algebra and analytic geometry; many courses in science, such as physics, chemistry, and biology; economics; sociology (as "social problems"); and several of the courses in history, such as American, English, European, etc. What a sound basis they have who refer to the high school as the "people's college," with so much of its total offering inherited from the standard college!

The textbooks of yesterday and today.—In order the better to compare the courses in the colleges of approximately a century ago with their counterparts in the colleges and the high schools of today a careful examination was made of the textbooks in use then and now. Some of the old texts were compared with present-day college texts; more often they were compared with present-day high-school texts, and not infrequently they were compared with both college and high-school texts of the present day. The comparisons essayed were in the history of English literature, rhetoric and composition, plane geometry, physics, chemistry, general history, American history, and economics, with briefer studies in a few other subjects. Only the general conclusion from the comparisons is here stated: each of the comparisons essayed tells essentially the same story, namely, that the subjects and the courses have experienced no apparent dilution during the process of depression to lower years in the school system. On the contrary, among the courses considered there are some, such as plane geometry and American history, which have been notably extended as to content and even strengthened as to difficulty during the period of downward trend. All of them are much enriched as to nature of content and improved as instruments of education.

To those who may call attention to the fact that textbooks do not always limit the content of courses and that consequently conclusions as to courses drawn from a comparison of textbooks only cannot be valid, it may be said that the farther back into the preceding century one goes, the less use one finds of supplementary volumes. Even as late as the year 1849 the catalogue of Williams College published the following information: "The College Library is open to the senior and junior classes the first Friday of the term

and every Wednesday; to the sophomore and freshman classes, every Saturday."

Some of the extensive depression almost universal in the fields of instruction mentioned must unquestionably have been due to development within the given fields, such as the development resulting from the findings of research in science and history. With the enlargement of the content emanating from investigations, differentiations and specializations were bound to make their appearance. Then came the desire to secure recognition of these differentiations as advanced courses in the college curriculum, as in the case of qualitative, quantitative, and organic chemistry. Before their introduction was feasible, it was necessary to lower the general or preliminary course far enough to make a place for these advanced courses. After making all allowances for this development, the fact remains that the advancing age of the student for any given college year and the increasing extent of his training before arriving at that point made the downward shift of the materials in undiluted and even in enhanced form practicable as well as desirable.

The changing organization of the college curriculum.—As it seemed possible that there might be some relation between the organization of the curriculums and the advancing age of the college student, an effort was made to note any changes in this respect during the last hundred years. A canvass of the catalogues of several New England colleges at intervals a decade apart through the period 1825-1915 disclosed far-reaching modifications in the method of administering the curriculum, of which the following summary for Amherst is illustrative: 1825, fully prescribed; 1835, fully prescribed; 1845, fully prescribed; 1855, slightly optional in the sophomore, junior, and senior years; 1865, slightly optional in the junior and senior years; 1875, slightly optional in the junior and senior years; 1885, much election in the last three years; 1895, largely elective in the last three years; 1905, largely elective in the last three years; 1915, largely elective with the major system.

The curriculums for most of these New England colleges at the opening of the period began as "fully prescribed," proceeded in the course of a decade or more to become "slightly optional"

in one or more years of the full course, became increasingly elective as the decades passed, and ended by being "largely elective with the major system." They moved step by step from the complete prescription of a restricted secondary school, through gradually increasing freedom comporting with the increasing age of the student, to an elective program which assumes sufficient maturity on the part of the student to assure wise selection of subjects and courses and which opens up the *opportunity* for specialization. Out of the curricular chaos that reigned during the operation of the largely elective plan emerged the major system, which *requires* the student to specialize.

The major system is at the present time almost universal, as shown by a study of the catalogues issued for the year 1920-21 or the year 1921-22 by 114 colleges: 94, or 82.5 per cent, of these colleges require the completion of a major for graduation. This is equivalent to saying that at least this proportion of the colleges require specialization of the student.

The function of the major.—Whatever may be the intent of college authorities in prescribing the major, it is important to know its actual function in practice. This has been ascertained for almost two hundred alumni of one of the best separate colleges in the Middle West by (1) inquiring of them the bases on which they selected their majors and (2) studying possible relations between these majors and subsequent occupational activity.

Three recurring influences appeared in the selection of undergraduate majors, as shown in Figure 2, namely, occupational preparation, interest in the subject, and esteem for an instructor. The overwhelmingly predominant motive in selection was the first named, which was reported by more than four-fifths of all of the graduates responding. Interest was operative in the case of almost two-thirds, while esteem for the instructor was a factor in the case of only 6.6 per cent of the graduates.

The men who made actual occupational use of their major subjects subsequent to graduation were just one-half of the total number.

There is no escape from the inference that for this group of college graduates the occupational function of the major was the paramount one. This function appears at the time of selecting

the major as well as in the use made of it after the completion of the college course. Thus, the system which emerged from the curricular chaos of a quarter of a century ago represents not merely a recognition of the need for specialization but also, from the point

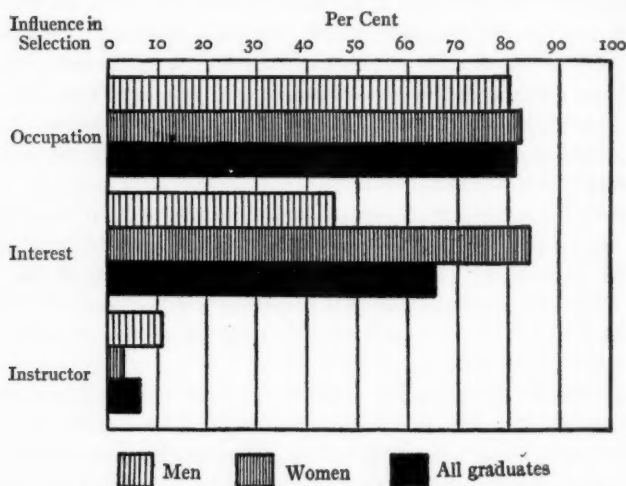


Fig. 2.—Percentage of approximately two hundred college graduates who were influenced in the selection of their major subjects by occupations, interests, and instructors.

of view of the student, a device affording an opportunity for *occupational* specialization or, at least, the beginning of such an opportunity. This occupational function is also in line with the greater maturity of present-day college students as compared with the maturity of college students of a century ago.

[To be concluded]

THE HIGH-SCHOOL STUDENT HANDBOOK

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The rapidly expanding high-school population and the changing conception of the aims of secondary education have given rise to numerous problems in high-school management which are met in different ways in different schools. No matter how well a high school is articulated with the lower schools from which its pupils are drawn, there will always exist a gap for the individual pupil when he advances from one school community to which he has become accustomed to another which he finds strange. To the romantic years of youth "going to high school" may be a glorious adventure; to the self-consciousness and sensitiveness of fourteen years of age it may be a trying ordeal which may cause some to give up the struggle. The teacher and the administrator must be quick to make use of any method or device to enable the new pupil in the high school to find himself and to become a useful citizen in the school community, contributing his part and deriving therefrom the greatest good in training.

The present study was undertaken in order to find out what representative public high schools throughout the country are doing to adjust the pupils as quickly as possible to the opportunities and practices that are new to them. A letter requesting certain information and copies of the materials used was sent to 160 high schools throughout the country. The letter was sent to all of the public high schools in the twenty most populous cities in the United States except about one-half of the schools in New York City and Chicago. In both of these cities the number of schools is so great that it was thought that returns from some of the schools would represent the general practice. About forty other schools in smaller population centers were also addressed. These schools were selected

because something known about the particular school, principal, superintendent, or town gave promise of returns of general interest.

The letter was worded in part as follows: "How do the best high schools familiarize the beginning or prospective pupils and the parents with their important practices and activities? Do you use printed or mimeographed material—handbook, manual, circulars?" A request for copies of the material followed, together with a few questions, the object of which was to determine the number of students and the number of teachers in the school, by whom such material was prepared, how it was used, how the expense was met, how long this material had been used, and whether its use had proved satisfactory.

One hundred and twelve answers were received, accompanied by a great deal of printed matter. Twelve schools reported that no printed material is used. In these cases it is inferred that adjustment and guidance are being accomplished entirely through personal contact without the aid of any standard devices. A few schools reported that the school paper is used as a medium for the guidance of the new pupils. Some interesting circulars to be given to the Freshmen or to be used by the home-room teachers in their guidance of the pupils were received as well as many pamphlets and circulars prepared by superintendents and principals for the guidance of eighth-year pupils in their selection of high-school courses.

In addition to the kinds of material mentioned, thirty-five schools sent copies of booklets which we shall call handbooks. Twenty-one schools reported handbooks in prospect, in actual preparation, or at present out of print. Therefore, fifty-six schools of the total number reporting are making use of the handbook as a guidance device or are planning to do so. The returns came from thirty-four cities or towns in twenty-one states and the District of Columbia. The handbooks received represent what is being done in at least one high school in each of nineteen cities in sixteen states.

The successful guidance of high-school pupils depends primarily on the nature of the pupils, but the number of pupils in the school is also an important factor. Of the fifty-six schools reporting on the handbook, the largest is the DeWitt Clinton High School of

New York City, with a student body of 8,700 boys and a faculty of 323. The smallest is the New Trier Township High School of Kenilworth, Illinois, with a student body of 1,260 boys and girls and a faculty of 72. The median school in this group has more than 2,600 pupils and a faculty of more than 100. Eleven of these schools have student enrolments exceeding 3,500. Of the group of schools reporting no handbooks, the median school has about 1,600 pupils, and only four schools reported a student enrolment exceeding 3,500. It is evident that the handbook as a device for guidance is more common in large school organizations.

Before going farther, it might be well to define the handbook. Our definition is adapted from the book used in the Central High School of Tulsa, Oklahoma, called, *A Manual of Administration*. A high-school handbook is a book of convenient pocket size containing useful information designed to present to the pupils, teachers, and parents the spirit, ideals, and objectives of the high-school community of students and teachers and the many working details of the large school organization by which and through which the school spirit is maintained, the ideals promoted, and the objectives realized.

The handbook has two major purposes: for the new student, it is a device to acquaint him with the opportunities and the standard practices of his new school; for both students and teachers, it is a codification of all of the approved and standardized practices of good school citizenship. There are several minor purposes; it is a device to acquaint the parents with the practices of the school and the opportunities there offered to the pupils; it is an administrative device promoting efficiency through the economy of time and effort; it is of value to the pupil as a means of training him to be self-reliant in going to a standard source for information instead of resorting to the haphazard assistance he is able to obtain from those about him or learning by the slow and wasteful process of making mistakes.

A brief study of the names given to the handbooks is interesting, in that the names in some cases reflect the purposes. Most of the books received are simply called handbooks. The handbook of the Central High School of Tulsa, Oklahoma, reflects the adminis-

trative value in its name, *A Manual of Administration*. Some appeal to the spirit of school patriotism in such names as the *Red and Gray* of the Northwestern High School of Detroit. Others are designated by a letter symbol of the school, as the "*B*" *Book* of the Ballard High School of Seattle. Others bear such names as the *Students' Guide* of the Stuyvesant High School of New York City or the *Handy Book* of the Bay Ridge High School of Brooklyn. A particularly happy title is the *Pathfinder* of the East Side Commercial and Manual Training High School of Newark, New Jersey. A booklet issued by the High School of Commerce of Boston is known as a *Pamphlet of Information for Parents and Pupils*.

There is a relation between the registers or catalogues at one time issued by some of the older high schools and the modern high-school handbooks. The old high-school catalogues were issued at a time when high-school aims and ideals were less democratic than they have come to be in the last twenty-five years. Such catalogues usually contained information about the standard course of study for all, based almost entirely on college-entrance requirements, and a few items of news about what happened at the last commencement exercises, both pretty well concealed between the list of faculty members at the front and the list of students' names and addresses at the back. Perhaps the order of precedence was fixed by what was then considered the relative importance of these elements of a school. The appeal such books made to the new pupil was usually one of inspiration. He was impressed by the faculty names lined up in academic procession to the very last degree, and he was filled with pride when he found his own name in the student list at the back—probably the first time he had ever seen his name in print. Some of the handbooks received are interesting examples of traditional catalogues which have taken on a few of the features of the modern handbooks.

A study was made of the contents of the handbooks received, and those items which appeared as constants were noted. On the basis of these a classification was attempted for the purpose of grouping the various items according to the kind of guidance offered. This classification was not entirely satisfactory because

many items serve more than a single purpose, and it was impossible to avoid cross-classification. However, the general grouping falls into eight divisions: (1) items of inspirational value promoting school spirit, (2) legal control and standard practices of administration, (3) curriculum guidance, (4) guidance for education beyond the high school, (5) vocational guidance, (6) personal guidance, (7) guidance in opportunities and practices of good school citizenship, and (8) miscellaneous aids.

While the analysis of the handbooks received revealed many details sufficiently common in high-school practices to be recognized by all, particular handbooks reflect much that is individual and peculiar to the schools by which they have been prepared. A glance at the items under each heading (kinds of guidance) reveals the kind of material thought to be desirable. Without attempting to name all of the schools, occasionally one is indicated as a good illustration of the item noted.

1. Items of inspirational value promoting school spirit

Aims of secondary education (Central High School, Tulsa, Oklahoma)

Aims and spirit of the particular school (Wadleigh High School, New York City)

School motto; school creed; school seal; school colors

School songs and yells; patriotic songs

History of the school

Notable achievements of the school, students, athletes, and alumni

War memorials

Principal's foreword (Central High School, Tulsa, Oklahoma; Englewood High School, Chicago)

Student president's foreword

2. Legal control and standard practices of administration

Laws: compulsory attendance; non-residents; secret societies

Rules: admission to high school; promotion; withdrawal

System of marks; reports; pupils' and parents' procedure

Tardiness, absence, and early dismissal procedure

Principal's interviews and office hours (DeWitt Clinton High School, New York City)

Home-room plan (West Technical High School, Cleveland)

Loan of textbooks; lockers; wardrobes; pupil's responsibility

Bulletins and bulletin boards; fire drills; lost and found department

Use of entrances and exits, elevators, and telephones

Bell schedules

- Uniform paper arrangement and standards of English (Evander Childs High School, New York City)
Summer-school opportunities; evening-school opportunities
3. Curriculum guidance
Details of courses of study according to points for graduation
Required subjects and elective subjects
Suggested courses of study for different aims
Special and individual adjustments of courses
Explanation of high-school credits and points
Directions for procedure of program-making (DeWitt Clinton High School, New York City)
Requirements concerning failure in subjects of study
Summary of subject contents; minimum essentials; textbooks used
4. Guidance for education beyond the high school
Unit requirements for admission to college (Wadleigh High School, New York City)
Colleges accepting certification and colleges requiring examinations (Senn High School, Chicago)
Educational guidance director
Grades of scholarship required for certification
Details of examinations held by regents, state boards, and the College Entrance Examination Board
How to make application for certification
Explanation of college unit system
Scholarships in colleges and other higher institutions
5. Vocational guidance
Placement bureau for work after leaving school and for part-time work (Evander Childs High School, New York City)
Regulations concerning the issuing of working papers
Vocational counselor
Books in library on vocations and choosing a vocation (Evander Childs High School, New York City)
6. Personal guidance
How to study; lesson preparation (Evander Childs High School, New York City)
Suggested good reading (Bay Ridge High School, Brooklyn; Senn High School, Chicago)
Advice on selecting lunch (Hutchinson-Central High School, Buffalo)
Advice on student conduct (Senior High School, San Diego, California)
Advice on personal appearance; use of good English (DeWitt Clinton High School, New York City)
Dean of girls; dean of boys
Health inspection and health advice
Thrift and school bank (East Side High School, Newark, New Jersey)

Places of interest in city all pupils should know

Art objects in school or local museum (DeWitt Clinton High School, New York City)

Proper way to use and treat books (Girls High School, Brooklyn)

Marking personal property for identification

Suggestions to poor spellers

Dress (Northwestern High School, Detroit)

7. Guidance in opportunities and practices of good school citizenship

Opportunities

Various clubs; athletic teams and contests; school publications

Annual shows; Boy Scouts; Girl Scouts; Reserve Officers Training Corps

Practices

Student government; constitution and by-laws of student government organizations

Regulations for eligibility to athletic and other activities

Citizenship credit plan (Manual Arts High School, Los Angeles, California)

Service squads: traffic, messenger, poster, etc. (Bushwick High School, Brooklyn)

Care of school property; punctuality; corridor deportment

Lunchroom courtesy and practices (Hutchinson-Central High School, Buffalo)

Classroom courtesy; study-period practices (Central High School, Cleveland)

Library usages and practices (Northwestern High School, Detroit; Senn High School, Chicago)

Discipline committees

Assemblies conducted by students

Honor society and honor awards and prizes

Honor roll for scholarship and for service (Hutchinson-Central High School, Buffalo)

Rules governing granting of athletic awards (Stuyvesant High School, New York City)

Afternoon help classes conducted by students (DeWitt Clinton High School, New York City)

Student organization store

Student financial aid (West Technical High School, Cleveland)

Good housekeeping practices: clean desks, floors, etc. (Wadleigh High School, New York City)

Alumni association; parent-teacher association

8. Miscellaneous aids

Floor plans; traffic diagrams (Senn High School, Chicago)

Directory of building (Senn High School, Chicago)

Faculty directory (Hutchinson-Central High School, Buffalo)

Seating plans for assembly hall and study hall (Senn High School, Chicago)

Library plan (Girls High School, Brooklyn)
Roster cards; program cards (Central High School, Cleveland)
Blank forms for insertion of athletic contests and scores (Ballard High School, Seattle)
Location of school athletic field and plan of field and clubhouse
Location of other athletic fields and other high schools
Car routes to reach other fields and schools (Senn High School, Chicago)
Calendar: holidays, school events
Symbols used in paper marking
Key to roster, course, and program symbols
Index to handbook

Most handbooks are prepared by the pupils themselves as projects in English composition classes, classes in journalism, and printing and binding shops. Some of the handbooks received were reported as having been prepared entirely by the faculty or some one member of the faculty. In only a few cases did the superintendent of schools contribute and then only an introduction or the official outline of the courses of study. The handbook should come from the citizenry of the school and not be imposed from the outside by superior authority. Coming from within, it can be made a valuable means of training the pupils in citizenship ideals and practices. "There is need in secondary education for the utmost possible personal participation of every pupil in every collective function of the school."¹ The determining of good citizenship practice in the school community, the gathering of information for the handbook, the writing of the "story," and the making of the book, all have too great an educative value to be sacrificed by depriving the pupils of participation in the preparation of the school handbook.

Probably the pupils are better qualified than the teachers to reveal school ideals and practices to other pupils. It is true in school life that the newcomer learns more about how to "play the game" from his fellows than he does from his teachers. Teachers often think that the pupils learn from their fellows how to "beat the game," forgetting that one who can devise a way to "beat the game" must know it thoroughly. Any direction for a group initiated by the group will meet with more willing acceptance and

¹ H. G. Wells, *The Story of a Great Schoolmaster: Sanderson of Oundle*. New York: Macmillan Co., 1924.

co-operation than a set of rules imposed by greater authority. "A group of boys or girls working together for a common end display little patience with the one who shirks."¹

The few handbooks received which were the work of teachers or administrators rather than co-operative student work do not show any superiority in plan or literary execution over those prepared by pupils. An objection might be offered here that the faculty supervision of the pupils' work brought about a refinement which made the result practically a faculty product. The objection is not valid. Such a refinement is the aim of teacher supervision of all of the pupils' efforts. The pupils must be coached in algebra, football, dramatics, or publications. If any project could be carried to its best results without teacher supervision and aid, the school would not be justified in devoting time to it. The time could be better spent in some other form of expression where the pupils could profit by teacher supervision and assistance.

Most high-school handbooks are sold to the pupils of the school. The prices range from five cents to twenty-five cents. The most common price is ten or fifteen cents. In large schools, such as those found in New York City, the general organization, which is the name given to the student government organization, finances the publications, and the books are sold. Apparently the great numbers sold assure financial success. One book received was reported by the principal of the school as "prepared and financed by a small group of Christian boys called the Hi-Y Club, which works for the best interests of the school." This book is sold to the pupils for five cents. In the introduction to the book, it is interesting to note that emphasis is given to the fact that the book is the school handbook and not the Hi-Y handbook. The booklet issued by the Central High School of Detroit was prepared and financed by the alumni association and distributed free. The *Red and Gray* of the Northwest High School of Detroit was prepared by a committee of pupils and teachers, was financed by the Girls' Affiliated Club and the Hi-Y Club, and is sold for ten cents. The handbook of the Cleveland High School of St. Louis was prepared by the pupils and the faculty and was financed by the proceeds

¹ H. G. Wells, *op. cit.*

of motion-picture shows. It is sold to the pupils for twenty-five cents. The Mount Vernon High School of Mount Vernon, New York, made an interesting report about financing. Their handbook was financed by the general organization and sold to the pupils below cost. A deficit of about \$175 has been incurred by each issue, and the school is at present asking the board of education for financial support. The Senn High School of Chicago reported that their *Green Book*, a very excellent example, is sold at cost to the pupils for twenty-five cents and that the school fund finances the publication and is repaid from the sales. J. G. Masters, principal of the Central High School of Omaha, reported that their first handbook had just gone to press. It will be distributed free to newcomers and sold for ten cents to other pupils. The board of education is financing the publication. William A. Wetzel, principal of the Senior High School of Trenton, New Jersey, reported that they are at present revising their handbook and have reason to believe that the board of education will pay for the publication with the hope that a copy may be given to every pupil in the incoming classes. The *Manual of Administration* issued for the first time last year by the Central High School of Tulsa, Oklahoma, was paid for by the board of education. Merle Prunty, the principal, reported that the book was distributed free to the pupils and was used as a textbook in school citizenship in the half-hour home-room periods. These reports are indicative of the trend in the use of high-school handbooks.

Certainly the handbook has its greatest value in the adjustment and guidance of the new pupil. Such a book placed in the hands of a Freshman will not only be read by him but at that interesting point in his school life will probably be closely read by his parents. Such an aid should not be dependent entirely on student financial support supplemented perhaps by paid advertisements. While the argument in favor of the older pupil paying for what is really "his book" is perhaps a good one, in the case of the new pupil the handbook is of a value to justify the expenditure of school funds. There was a time when singing teachers, pianos, and playground equipment could be provided for the schools only through the generosity of private citizens or the collection of pennies

from the pupils. When the value of these tools to education became fully recognized, financial support was given by the guardians of the taxpayers' money. The high-school handbook seems to be repeating this phase of public-school history. No one of the answers indicated that the handbook is to be discontinued because the value of it is doubted.

High schools have grown rapidly, and their aims and objectives have multiplied. They were once for a highly selected and fortunate few looking forward to college or professional training. Today the composite high school of a large city or the consolidated high school of several rural or semirural communities has a student and teacher population equal to a good-sized village or town. In such schools a student handbook is both a need and an opportunity. It is impossible for one principal or any one teacher to maintain intimate relations with several thousand pupils and make his personal presence and guiding influence felt alike by all. An Arnold of Rugby or a Sanderson of Oundle had at the most only a few boys to direct. The large high school may in many respects be deplored, and there may come a time in public education when we shall break away from the school of thousands, running in alternating shifts like a great industrial plant being worked to its greatest capacity, but the condition, like the crowded trolley-car and the congested highway, is at present with us, and those who are making the training of the young their business must meet the conditions as they exist. It must not be forgotten also that the large school community provides wider opportunities for social co-operation and a training of pupils more in harmony with the conditions that they will face in life. To draw on H. G. Wells again: "Schools should be miniature copies of the world. We often find that methods adopted in school are just the methods we should like applied to the state. We should, in fact, direct school life so that the spirit of it may be the spirit which will tend to alleviate social and industrial conditions."²

² H. G. Wells, *op. cit.* p. 70.

PRESENT STATUS OF THE JUNIOR HIGH SCHOOL IN CITIES OF MORE THAN 100,000 POPULATION

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According to the United States Census of 1920, sixty-eight cities have a population of 100,000 or more. In June, 1924, questionnaires were sent to these cities by the Pennsylvania State Department of Public Instruction, requesting information with regard to the present status of the junior high school. Replies were received from sixty-four of these sixty-eight cities.

Thirty-five cities report junior high schools in operation. Nine additional cities report junior high schools under construction. Four additional cities report junior high schools authorized. Thus, 48, or 75 per cent, of the cities replying report junior high schools in operation, under construction, or authorized. Two additional cities report the adoption of the junior high school plan of organization, and one city reports that adoption is favorably considered, making 51 cities (80 per cent) that have taken positive or favorable action with regard to the junior high school. Ten cities report no junior high schools, and three cities report decisions not to adopt, making thirteen cities (20 per cent) that have taken either no action or negative action. Table I gives a complete tabulation of the data received.

The following unsolicited comments were made:

Atlanta.—One year old in Atlanta and going fine.

Baltimore.—Already adopted and making marked progress.

Bridgeport.—Just beginning operation.

Chicago.—We are organizing junior high schools now and hope to operate five in September.

Cincinnati.—Our board is considering the extension of the policy.

Cleveland.—In a few years we should complete building program and have a 6-3-3 organization except for two remaining six-year senior high schools and two four-year technical and commercial schools.

Denver.—Junior high school plan in permanent operation.

Des Moines.—We shall spend about \$3,000,000 on junior high schools within two years.

Detroit.—We are permanently committed to the 6-3-3 program.

Jersey City.—The junior high school has been adopted by our board as a policy, and we expect to erect several other buildings in the near future.

Los Angeles.—We inaugurated the junior high school program in February, 1910, and have been in the process of reorganization ever since. In the new bond issue of \$34,640,000, passed June 3, 1924, there is provision for eight or nine new junior high schools.

Minneapolis.—We expect to add junior schools as funds permit until the city school system is operating on the 6-3-3 plan.

Nashville.—Planning to put in junior high schools this coming year.

Newark.—It is likely that the junior high school or the 6-3-3 plan will be extended.

New Haven.—Board of education has adopted the junior high school policy, involving the erection of six junior high schools in the next ten years.

Norfolk.—We have two large junior high school buildings and need a third to relieve congestion.

Omaha.—We are working toward the adoption of the junior high school as a policy for school administration.

Paterson.—The junior high school plan has been deferred until some other very urgent building needs have been satisfied.

Philadelphia.—System is being installed as rapidly as buildings can be erected.

Pittsburgh.—The junior high school organization has been adopted as the policy of Pittsburgh.

Portland.—The question of establishing such schools has not been raised.

St. Louis.—Preparing plans for city-wide organization. Plan to open two next year.

Salt Lake City.—Well established.

San Antonio.—Community is "sold" on the junior-school idea.

San Francisco.—Junior high schools are authorized for organization throughout our school system.

Seattle.—We have none at present but expect to have a unit by 1926.

Spokane.—Not formally adopted but favorably regarded.

Toledo.—We shall probably continue the 6-2-4 plan for some years as our senior high schools are not crowded. We have one new building under way which will be used exclusively for a junior high school. This will contain Grades VII, VIII, and IX.

Worcester.—Our first junior high school will be organized in September, 1924.

Yonkers.—One junior high school is under construction; plans for a second are being prepared; and the site for a third has been secured. We hope to occupy the first building in September, 1925.

Youngstown.—We are for it.

TABLE I
DATA CONCERNING JUNIOR HIGH SCHOOLS IN CITIES OF MORE THAN 100,000 POPULATION*

City	Number of Junior High Schools in Operation	Number of Junior High Schools under Construction	Number of Junior High Schools Authorized	Number of Junior-Senior High Schools—Grades VII to XII	Number of Junior High Schools Organized in Consistency with Elementary Schools—Grades I to IX	Number of Schools of Other Types	Junior High Schools Allocated by Board of Education	Junior High School Definitely Rejected by Board of Education
Akron.....	.....	.....	.....	.....	.....	.....	.....	.....
Albany.....	.....	.....	.....	.....	.....	.....	.....	.....
Atlanta.....	4	.....	.....	I	.....	.....	X	.....
Baltimore.....	10	I	2	I	I	.....	X	.....
Birmingham.....	.....	.....	.....	.....	.....	.....	.....	X
Boston.....	3	3	.....	.....	16	.....	.....	.....
Bridgeport.....	I	.....	.....	.....	I	.....	X	.....
Cambridge.....	.....	.....	.....	.....	.....	.....	.....	X
Chicago.....	.....	.....	5	.....	.....	3†	X	.....
Cincinnati.....	I	.....	.....	I	I	.....	†	.....
Cleveland.....	12	I	2	10||	.....	.....	X	.....
Columbus.....	12	.....	.....	.....	.....	.....	X	.....
Dallas.....	.....	.....	.....	.....	.....	.....	.....	.....
Dayton.....	2	2	.....	I	2	1§	X	.....
Denver.....	6	2	2	.....	I	.....	X	.....
Des Moines.....	2	5	5	3||	2||	.....	X	.....
Detroit.....	6	3	.....	.....	.....	.....	X	.....
Fall River.....	I	.....	I	.....	.....	.....	X	.....
Grand Rapids.....	5	2	2||	2||	1||	.....	X	.....
Hartford.....	.....	.....	.....	.....	.....	.....	.....	.....
Houston.....	4	.....	4-6	.....	.....	.....	X	.....

* Four cities—Buffalo, Camden, Fort Worth, and Lowell—did not report.

† Recently adopted junior high school.

‡ Favorably considered for adoption.

§ Ninth year.

|| Included in a preceding item.

TABLE I—Continued

City	Number of Junior High Schools in Operation	Number of Junior High Schools under Construction	Number of Junior High Schools Authorized	Number of Junior High Schools—Grades VII to XII	Number of Junior High Schools Organized in Connection with Elementary Schools Grades I to IX	Number of Schools of Other Types	Junior High School Adopted by Board of Education	Junior High School Pending Rejection by Board of Education
Indianapolis.....							X	
Jersey City.....		1	*				X	
Kansas City, Kansas..	3		1	1				
Kansas City, Missouri..	3	2	1				X	
Los Angeles.....	12	2	1	6			X	
Louisville.....								
Memphis.....								
Milwaukee.....								
Minneapolis.....	6	1	1	1		3†	†	
Nashville.....				3			X	
Newark.....	3				3		X	
New Bedford.....							X	
New Haven.....		2	2				X	
New Orleans.....							X	
New York.....		4		3	37	5§	X	
Norfolk.....	2						X	
Oakland.....	16			2	10		X	
Omaha.....			3	1			†	
Paterson.....								
Philadelphia.....	8	4	4||	1||			X	
Pittsburgh.....	4	2	1	2	1		X	
Portland.....								
Providence.....							†	

* Several

† Provisional

‡ Recently considered for adoption.

§ Grades VII A to IX B.

|| Included in a preceding item.

TABLE I—Continued

City	Number of Junior High Schools in Operation	Number of Junior High Schools under Construction	Number of Junior High Schools Authorized	Number of Junior-Senior High Schools—Grades VII to XII	Number of Junior High Schools Organized in Connection with Elementary Schools—Grades I to IX	Number of Schools of Other Types	Junior High School Adopted by Board of Education	Junior High School Definitely Rejected by Board of Education
Reading.....	3	1	1				X	.....
Richmond.....	4						X	.....
Rochester.....	4			I			X	.....
St. Louis.....	1						X	.....
St. Paul.....		2	1*				X	.....
Salt Lake City.....	7				7		X	.....
San Antonio.....	10		1				X	.....
San Francisco.....	3	3	6				X	.....
Scranton.....		1					X	.....
Seattle.....			1					.....
Spokane.....	3				5		†	.....
Springfield.....	4				2	2†	X	.....
Syracuse.....		2	4		4		X	.....
Toledo.....		1					X	.....
Trenton.....	3	2	4		1		X	.....
Washington.....	6		5				X	.....
Wilmington.....								.....
Worcester.....		1	1				X	.....
Yonkers.....		1	2				X	.....
Youngstown.....	3		1		5		X	.....

* Included in a preceding item.
† Rejected but considered for adoption.
‡ Grades I to VII.

SUPERVISED STUDY IN WISCONSIN HIGH SCHOOLS

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At the 1922 meeting of the Southern Wisconsin Teachers' Association the Department of High School Principals undertook an investigation of the comparative merits of supervised study and the common types of recitation as methods of instruction. The following plan of conducting the investigation was adopted: (1) In each co-operating school two classes were to be organized in some subject, such as algebra, these two classes to be composed of pupils of as nearly equal ability as possible. (2) The ability of the members of each class was to be determined by means of intelligence tests or other objective measures. (3) One class was to have a class period of sixty minutes in which the supervised-study plan was to be employed. The other class was to have a class period of forty-five minutes in which the usual recitation method was to be used. (4) Both classes were to be taught by the same teacher. (5) The progress of each group was to be studied by means of comparative tests given at the beginning, during, and at the end of the experiment and by means of the teacher's marks. The results of this objective study were to be supplemented by securing the opinions of the principal, teacher, and pupils as to the relative progress of the two classes. In order that the teachers might be thoroughly acquainted with the supervised-study plan, they were referred to a selected bibliography on the subject. The following letter was sent to each teacher:

One of the primary aims in carrying on this investigation of the comparative merits of the recitation and supervised-study plans is to determine which is the superior method of instruction. Consequently, in order to have results that are comparable for the schools carrying on this investigation as well as for the two types of instruction, it will be necessary for all teachers to use the same kind of supervised-study and recitation methods.

The recitation method does not need much standardization since it is so well known. Its main features are the assignment some time during the period (which is to be forty-five minutes in length) of a unit of work, the main difficulties of which may be explained, and the beginning and completion of that unit by the pupils outside of the class period without the directing help of the teacher. This does not preclude, of course, extra help after class for those pupils who desire it or any other of the accepted practices which a teacher adopts under the recitation plan. The main point is that the pupils are assigned a task one day and questioned as to its completion the following day.

As the supervised-study plan is not so familiar to most teachers, the following general technique is suggested. Care should be taken to follow the spirit of these suggestions so that we may ascertain somewhat scientifically the comparative merits of the plan.

The kind of supervised study that should be put into use is that which conceives the class period as an entire hour in which the teacher may direct the mental operations of the pupils through the subject-matter as it is used in getting a new view of yesterday's problems and an understanding of the new problem for the day and in making progress within the class toward the solution of this new problem. Thus supervised study begins when the class begins and ends at the close of the period. There should be no separate part of the period just for supervision; the entire period should be used in directing the mental operations of the pupils, whether they are reciting, being assigned a lesson, or working out that assignment. A class period of sixty minutes should be divided approximately as follows: twenty minutes for discussion and review of previous work through recitation, examination, etc.; fifteen minutes for assignment of new problem; twenty-five minutes for working out new problem. There should be nothing hard or fast about the time distribution. It is quite possible that at a certain point in the course it might take the entire period or even a number of periods to work out a problem. Hence, this suggested distribution is simply a guide.

If you have never used supervised study, be careful not to make it a prolonged recitation. Two high schools in Wisconsin had to abandon the plan because the teachers were virtually holding sixty-minute recitations. This is unfair to the pupils and hard on the teachers.

Furthermore, it should be specifically understood that supervised study does not mean the abandonment of study outside of class. Every pupil of average ability should begin an assignment in class which will take thirty minutes to complete outside of class. If the pupil is below average, he will have to spend more time than this outside of class. The point is that the pupil does in class the hardest part of his work—getting a start toward the solution of an assignment. He meets the characteristic difficulties there and completes the work out of class during one of his regular study periods. Work such as re-writing themes, outlining, memorizing, searching for further references, etc., should be left for the work outside of class.

The high schools at West Allis, Waukesha, Watertown, Jefferson, Beloit, Stoughton, and Janesville co-operated in the experiment. Only four of these schools, however, sent in the necessary objective data. For purposes of discussion these schools will be designated as School A, School B, School C, and School D.

Results of the investigation in School A.—School A conducted the experiment in three pairs of classes: Algebra 9 A, English 10 B, and History 12 B. This school used the teachers' marks to determine both the relative ability of the members of the classes and the progress made by these classes. The data for these classes are shown in Table I.

TABLE I
COMPARATIVE RESULTS IN SCHOOL A

	Number of Pupils in Class	Median Mark before Experiment	Median Mark after Experiment	Number of Failures
Algebra 9 A:				
Recitation group.....	23	91.1	87.5	6
Supervised-study group.....	24	90.6	86.9	4
English 10 B:				
Recitation group.....	24	89.0	87.5	4
Supervised-study group.....	25	84.2	82.5	4
History 12 B:				
Recitation group.....	30	89.2	90.4	1
Supervised-study group.....	30	85.7	86.3	2

In the algebra classes the relation of the median marks was approximately the same after the experiment as before it; the small variation is in favor of supervised study. There were six failures in the recitation group as compared with four in the supervised-study group. This is at least slight evidence that supervised study is beneficial to the weaker algebra pupils.

An attempt was made to obtain classes of equal ability in English, but, on the basis of the teachers' marks for the previous semester, the recitation group was considerably the stronger. This makes it necessary to compare the two groups by noting the marks at the close of the experiment as compared with those at the beginning. The median mark in each group was lower; in the supervised-study group 1.7 lower and in the recitation group 1.5. The variation is so slight as to indicate that neither the supervised-study plan

nor the recitation plan was superior to the other. However, there were four failures in each class. As the recitation group was far superior at the start, this is evidence that the supervised-study method is beneficial to the poorer pupils.

As in the case of the English classes, the members of the two classes in United States history were not of equal ability, those in the recitation class being the stronger. The median mark of this group in the preceding semester's work in modern history was 3.5 higher than the median mark of the supervised-study group. In each class the median United States history mark following the experiment was higher than the median modern history mark. In the recitation class this advance was 1.2, and in the supervised-study group .6. This indicates, but not decisively, that the recitation method was superior in United States history. There were

TABLE II
COMPARATIVE RESULTS IN ENGLISH 10 B IN SCHOOL B

	Number of Pupils	Median Intelligence Quotient	Median Score on the Hillegas Composition Scale
Recitation group.....	28	94.5	6.4
Supervised-study group...	27	96.3	6.7

two failures in the supervised-study group and only one in the recitation group. However, as there were more weak pupils at the start in the supervised-study group than in the recitation group, this does not point to any marked superiority of the recitation method in handling the weaker pupil in United States history.

Results of the investigation in School B.—School B conducted the investigation in tenth-grade English. Intelligence quotients were the basis for grouping the pupils. Scores based on the Hillegas Composition Scale were used to determine the progress made by the pupils. The data are shown in Table II. This table shows that the members of the two classes were of very nearly equal mental ability and that after the experiment the supervised-study group showed three-tenths of a point superiority over the recitation group in the ability to write compositions. From this evidence

it appears that the supervised-study method was slightly superior in English 10 B.

Results of the investigation in School C.—School C had parallel classes in English 11 B and Algebra 9 A. Intelligence scores and scores made on various achievement tests were used to determine the relative ability of the supervised-study and recitation classes. The progress of the classes was measured by standard tests and teachers' marks. The data for the 11 B English classes are shown in Table III. According to intelligence ratings, the pupils in the two groups were of practically equal ability. According to achievement tests and marks, the pupils in the supervised-study group were, at the beginning, superior except as measured by the number

TABLE III
COMPARATIVE RESULTS IN ENGLISH 11 B IN SCHOOL C

	Recitation Group	Supervised-Study Group
Before experiment:		
Median score on the Terman Group Test of Mental Ability	143.3	142.5
Median number of mistakes in the Briggs English Form Test	7.7	6.8
Number of errors per 100 words in composition	1.9	2.2
Median score on Willing's Scale for Measuring Written Composition	7.0	8.2
Median score on the Ayres spelling scale (selected words)	88.1	92.5
After experiment:		
Median score in true-false test on <i>Macbeth</i>	16.0	19.0
Median mark in general examination prepared by instructor	80.0	92.4
Median semester mark	77.4	87.9
Number of failures	9	3

of mistakes per 100 words in composition. At the close of the experiment the members of the supervised-study group were still superior, the superiority being practically the same as before the experiment. In the recitation group there were nine failures as compared with three in the supervised-study group. Again, it would appear that the supervised-study method is superior for weak pupils.

The data for the 9 A algebra classes in School C are shown in Table IV. According to the Terman intelligence ratings, the pupils in the two classes were of about equal ability. In all of the measures of progress the supervised-study group showed marked superiority over the recitation group. This superiority ranged from 12.5 to

30 per cent. In the equation and formula test, which was given after six weeks and again after eighteen weeks, the supervised-study group raised its median mark 35 per cent, while the recitation group raised its median mark but 26 per cent. According to the instructor's marks, the best results were obtained in the supervised-study class. There were ten failures in the recitation group as compared with four in the supervised-study group. Supervised study apparently reduces the number of failures.

Results of the investigation in School D.—School D investigated the relative value of the supervised-study plan and the recitation

TABLE IV
COMPARATIVE RESULTS IN ALGEBRA 9 A IN SCHOOL C

	Recitation Group	Supervised-Study Group
At beginning of experiment:		
Median score on the Terman Group Test of Mental Ability	102.00	102.85
Median mark given by instructor for preceding semester...	76.07	78.50
After 6 weeks:		
Median score on the Hotz Equation and Formula Test....	6.00	6.75
Median score on the Hotz Problem Test.....	4.41	5.25
After 3 months:		
Median score on the Hotz Graph Test.....	4.44	5.75
After 4½ months:		
Median score on the Hotz Addition and Subtraction Test..	6.83	7.83
Median score on the Hotz Multiplication and Division Test	7.00	7.90
Median score on the Hotz Equation and Formula Test (repeated).....	7.58	9.12
Median semester mark.....	70.00	76.80
Number of failures.....	10	4

plan in an 11 B English class. By means of intelligence scores and the Thorndike-McCall Reading Scale an attempt was made to get classes of approximately equal ability. The recitation group, however, was slightly superior. To note the progress a number of form tests were given with the results recorded in Table V. The supervised-study group excelled in four of the five tests given. This fact shows that the supervised-study method was more successful in School D.

The principals' reactions.—In order to supplement the objective data, the opinions of the principals, the instructors, and in some cases the pupils were obtained by means of questionnaires. The

questions sent to the principals and the replies received from six of these principals are as follows:

1. As a means of instruction which do you consider productive of the better results, the supervised-study method or the recitation method?

Four principals answered, "supervised study"; one answered, "recitation method"; and one replied, "This depends largely on the teacher. To the masterful and prudently sympathetic teacher, the former offers greater opportunity."

2. If there were six one-hour periods in your school day, if each teacher were to teach five classes, and if all subjects, including manual arts, chemistry, home economics, etc., were to be given one such period a day, how many more teachers would you have to hire? The question does not apply, of course, to schools organized in the manner described.

TABLE V
COMPARATIVE RESULTS IN ENGLISH II B IN SCHOOL D

	Median Score of Recitation Group	Median Score of Supervised- Study Group
Briggs English Form Test:		
Punctuation	82.84	84.90
Verb "lie"	96.40	98.64
Verb agreement	91.46	81.59
Pronoun agreement	95.83	99.55
Possessives	85.41	95.95

Three of the principals reported that their schools are already so organized, two adding that such organization is satisfactory. One replied that no additional teachers would be needed and one that probably three additional teachers would be required in a staff of forty. One of the principals did not answer.

3. Have you noticed that supervised study tends to make the pupils dependent on the teacher?

Three principals answered, "No"; two, "No, not necessarily"; and one, "Yes."

4. Have you noticed that in the supervised-study class the class moves either too slowly for the bright pupil or too fast for the slow pupil?

Five principals answered, "No"; one answered, "Yes."

5. If you think that under a plan of supervised study pupils ought to be grouped according to intelligence, please state why.

One principal does not favor such grouping because "to democratize is the very aim of socialized study." Five principals are in favor of grouping according to intelligence. The reasons given are the following:

- a) Convenience.
- b) Homogeneity facilitates group progress.
- c) Such grouping standardizes work between similar sections.
- d) It makes possible a flexible course of study.
- e) It provides a suitable rate of learning for either retarded or accelerated pupils.

6. What are the administrative advantages and disadvantages of an organization under the lengthened-period or supervised-study plan?

ADVANTAGES

- a) The placing of all subjects on the same time basis simplifies program-making.
- b) Directed study lessens failures.
- c) It utilizes both recitation rooms and laboratories to better advantage.
- d) It allows wider use of project work.
- e) It is better adapted to vocational subjects.
- f) It makes possible a simpler organization because it does away with double-period classes.

DISADVANTAGES

- a) If the building has been constructed with large study halls, there will be empty space in these study halls when the classrooms are filled.
- b) It is difficult for the supervisor to measure the progress of instruction.
- c) It makes difficult a satisfactory schedule for manual arts and home economics.

7. What subjects, if any, lend themselves best to supervised study?

Most of the principals think that the subject makes but little difference. However, the subjects were mentioned in the following order: mathematics, science, Latin, history, English.

The teachers' reactions.—Eight teachers replied to a questionnaire. The questions asked and the answers received are as follows:

1. Does the recitation or supervised study contribute better to the realization of your aim of instruction? Why?

All of the teachers answered in favor of the supervised-study plan. The reasons given are as follows:

- a) It provides the needed time to develop the work properly.
- b) It makes individual help possible.
- c) It provides an opportunity to develop correct habits of study.

- d) It awakens interest.
- e) It stimulates pupils to do more research work.
- f) It provides an opportunity for the stronger pupils to assist the weaker ones.

g) More ground is covered.

h) As supervised study provides more situations than does the recitation plan, it aids more largely in the building of character.

2. In what respects, if any, does the status of the teacher in a supervised-study class differ from the status of the teacher in a recitation class?

The general opinion of the teachers was expressed by one in these words:

In a supervised-study class a teacher can become a sympathetic, helpful co-worker instead of an autocrat who, no matter how benevolent, still quite necessarily plays the rôle of a despot who gives orders. In the forty-five minute period time is pressing, and orders must be given.

3. How do the pupils like the supervised-study plan as compared with the recitation plan?

Five teachers reported that the pupils like the supervised-study plan the better; one that they prefer the recitation plan; one thought that the pupils are neutral, and one did not answer.

4. Does the one-hour period used in supervised study result in fatigue in the latter part of the period?

Four teachers answered, "No"; three, "Yes"; and one did not reply.

The pupils' reactions.—In School C a questionnaire was given to each pupil who was a member of the supervised-study classes. In this he was asked which type of organization he preferred, the sixty-minute supervised-study type or the recitation type. In the algebra class the pupils were unanimously in favor of the supervised-study period, while in the English class eighteen pupils preferred the recitation type and eight the supervised-study type.

The pupils were also asked to give the advantages and disadvantages of the supervised-study plan. The advantages mentioned are as follows:

1. It makes possible a better preparation of lessons.
2. The pupils get a good start as to method of work.
3. The teachers are able to give needed help.
4. The pupils get more out of it.
5. It saves time.
6. It does away with the distractions of the large study hall.

7. It aids in application.
8. The pupils always study their lessons and therefore have no excuse for not having them.
9. Interest is developed.
10. There is little home work to do.
11. It provides definite time for study.
12. Study helps are given.

Among the disadvantages mentioned are the following:

1. It wastes the time of the bright pupil.
2. It requires more outside study.
3. It is tiresome.
4. The pupils do not think for themselves.
5. The teachers use most of the period for recitation.
6. There is more talking and other distractions than in study halls.
7. The time is too short, which means that you have parts of all of your lessons to prepare at home.

GENERAL CONCLUSIONS

1. In all, seven pairs of parallel classes were considered in the investigation; two pairs, the algebra classes in School C and the English classes in School D, showed rather definitely that greater progress was made in the supervised-study groups; four pairs showed slight variation in progress, favorable to supervised study; and one pair, the United States history classes in School A, indicated that the recitation plan was superior as a method of instruction.

2. Three supervised-study classes had fewer failures than the parallel recitation classes; one had the same number; one had more; and in the other two cases the number of failures could not be determined from the data submitted.

3. In general, then, the objective data indicated a superiority of the supervised-study plan over the recitation plan as a method of instruction. However, the objective data were not conclusive.

4. The investigation showed also that when objective data are sought, the present instruments of measurement are not wholly adequate.

5. In the schools and classes represented in the investigation, the principals, teachers, and pupils generally believe that the supervised-study plan, as a means of instruction, is productive of better results than the common types of recitation and unsupervised study.

THE EFFECT ON HIGH-SCHOOL SCHOLARSHIP OF PUPIL PARTICIPATION IN EXTRA-CURRICULAR ACTIVITIES

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So far as the writer has been able to examine the literature, there is little evidence that the scientific educator has turned his attention to the relation between extra-curricular activities and scholarship in the high school. Yet no one will deny that these activities in the high school have increased in extent and importance, and with the enormous growth in high-school enrolment their influence reaches an ever-enlarging group. The problem of their effect on scholarship naturally arises. It seems safe to assert that few people send their children to high school to participate in extra-curricular activities at the expense of their curricular work. On the other hand, we must recognize the elemental tendencies in human nature. Group action is the inevitable corollary of community of interest, and in the school common interests are to be found. If curricular work, however, calls for the continuous exercise of all of the talents of a pupil in order that its satisfactory performance may result, then the question of extra-curricular activity for him becomes at least debatable.

There are tendencies, exemplified in the Kansas City high schools, to evaluate some of these activities and assign to them credit toward graduation. Last year a point system was devised in one school to limit the extent of a pupil's participation. The present investigation, of course, excludes those activities that have been so accredited, and at the time the pupils considered in this study were in school no point systems were in force to limit their activity. The field lends itself well, therefore, to a statistical study of the relation between participation in extra-curricular activities and scholarship.

Let us assume that we have two groups of pupils who have completed the high-school course. The pupils in one of the groups

have participated to a greater or less extent in extra-curricular activities, while the pupils in the other group have taken no part in such activities. We might simply compare the marks made by the pupils of the first group with those made by the pupils of the second group, assuming that marks are a measure of scholarship, and draw our conclusions. Such a comparison, however, would be misleading unless the minimum standard of scholarship set by the school authorities for participation in extra-curricular activities is taken into account. In the Kansas City high schools there is a general regulation that the making of two P's or one F in any semester bars the pupil from participation until a semester's work has been completed which meets the requirements. Quite obviously, then, the chances are that on the whole the marks of participants will be higher than those of non-participants. Furthermore, certain organizations voluntarily require a higher standard for membership than that set by the school authorities. In competitive athletics, however, the standard required is merely passing marks in at least four subjects.

Certainly, then, the solution of this problem lies not so much in a comparison of group with group as in a study of the performance of each group before and during participation, with some regard for the native ability of the pupils. It is a question not only of what pupils do in curricular work while participating in extra-curricular activities but of what they probably would have done had they not participated. We need to measure the performance of the participating group during participation by two standards: (a) native ability and (b) scholarship before participation begins. In order to determine the significance of the results, we must measure the performance of the non-participating group for a corresponding period by (a) the native ability of the pupils and (b) their scholarship in the period before participation ordinarily begins.

Indeed, the solution of this problem calls for more than the measurements we have outlined. These measurements will, through coefficients of correlation, show which group does its work more nearly according to native ability as revealed by intelligence tests and the scholarship standards set by the pupils before participation begins. It remains for us to search for significant changes in

the distribution of high, low, and medium marks. While participating in these activities, the pupils may maintain mean marks much the same as before participating and yet be making more medium marks and fewer high and low marks or vice versa. We shall have to undertake, therefore, a distribution of the marks made by pupils of each of these groups for corresponding periods.

Two courses are open. This problem may be solved for the general effect of participation on scholarship, taking all extra-curricular activities together, or it may be solved for each activity or type of activity separately. We have chosen the former method in the hope that it may lead to a general thesis. Athletics, however, while included in the whole group, deserves and will receive separate consideration.

The problem contemplates active participation as distinguished from mere passive membership in an organization. Some effort must be made, therefore, to include in the participating group only those whose records indicate some activity. Moreover, pupils participate in degrees varying from membership in one organization to membership in three or four organizations at the same time, sometimes holding office, participating in school contests, or representing the school in outside competition in addition. Any effect of such participation on scholarship might not be marked when the whole group is considered but might be quite apparent when the intensely active pupils are studied alone. The solution of our problem, then, requires that the leaders be segregated for separate study, and this we shall attempt to do.

Summarizing our analysis, it seems clear that to solve the problem we must seek answers to three questions: (1) During the period when one of two groups is participating in extra-curricular activities, which group more nearly maintains a standing in scholarship that accords with native ability? (2) Which group shows the higher correlation between scholarship during the period of participation and scholarship during the period before participation ordinarily begins? (3) What significant changes occur in the distribution of high, low, and medium marks? From an interpretation of the answers to these questions perhaps one may derive the thesis that is correct.

The analysis of the problem discloses the necessity for certain data, the methods of securing which follow:

The Junior College and the Teachers' College of Kansas City draw students in considerable numbers from each of the four high schools of the city. It seemed, therefore, that a satisfactory group for study could be obtained simply by taking all of those students who could conveniently be subjected to intelligence tests and whose high-school records in extra-curricular activity and in scholarship were available. This method, pursued in the autumn of 1921, gives us 139 cases from the Central High School, 108 from the Westport High School, 92 from the Northeast High School, and 59 from the Manual Training High School, a total of 398 cases, 239 girls and 159 boys. A large number of these graduated from high school in 1921; a smaller number graduated in 1920; and a few graduated in earlier years. Thus the group seems to be a fairly representative one. There are many pupils (155), equally divided between boys and girls, who took no part, or practically no part, in extra-curricular activities. On the other hand, the group includes some of the most active members of their respective classes and others of varying degrees of activity. For example, the following is the record of one pupil. The figures in each case represent the year of participation: vice-president of junior class, 3; vice-president of senior class, 4; member of Aristonian Society, 2, 3, and 4 (critic and president); member of French Club, 4; member of play cast, 3 and 4; member of High School Club, 4; literary editor of high-school annual, 4; member of Student Council, 4; participant in Inter-Society Literary Contest, 4.

The question as to whether the students who enter the Junior College are representative of their graduating classes so far as participation or non-participation in extra-curricular activities is concerned was submitted to the principal of one of the high schools. This principal considers them representative. Furthermore, the group studied includes roughly 30 per cent of all of the graduates of the four high schools for the year 1921.

The Army Alpha Test was used. The writer appreciates the added value that would have accrued to this study had he been able to give more than one intelligence test, but conditions were

not such that this could be done without seriously interrupting the college work. He is also conscious of the criticisms that are made of the Army Alpha Test. The shortcomings, however, are operative with both groups, and this one test may form a fairly satisfactory point of reference in our study.

The only available basis for measuring scholarship was the teachers' marks. It is admitted that standardized tests would have been used had the available tests and school conditions warranted such procedure. Since, however, pupils are promoted on the basis of teachers' marks, such marks do not seem to be inappropriate for use in this study. Marks in the Kansas City high schools are recorded at the end of each semester according to the following scheme: E, excellent; G, good; M, medium; P, poor but passing; and F, failure. It would seem that if we consider all of the subjects studied by a pupil in his four-year course we should arrive at a fair measure of his achievement.

Fortunately, complete records of extra-curricular activities are published each year in the form of high-school annuals. Following the name of each graduate is a fairly accurate record of his extra-curricular activities. Each annual also contains lists of all organizations with their members and officers, the staffs of the weekly paper and of the annual, the participants in the various school and interschool contests—in short, all extra-curricular activities and the participants therein. As a check on the accuracy of the individual records, the lists of participants in each activity published in earlier annuals were examined and the necessary corrections and additions made. Four annuals were examined in this manner for each student in order that none of his activities during his four years in high school might be overlooked. We thus obtained a complete list of each student's activities together with the exact year or years of his course in which he participated in each.

The analysis of the problem indicated that its solution would necessitate the consideration of two groups of pupils, namely, those who participate in extra-curricular activities more or less intensely and those who do not. The latter group serves as a basis for comparison, while the former group is the direct object of study. To solve the problem we should attempt to assign to

the participating group those who were not only members of a club, for example, but who actually took some interest and were active to an appreciable extent. Unfortunately, we had no accurate record of actual activity. In order to overcome this deficiency at least in part, it was decided to include in the participating group only those who participated in more than one organization or activity, or who, if a member of a single organization, served in an official capacity part of the time. Table I shows the result of a division on this basis.

TABLE I

	Central High School	Westport High School	Northeast High School	Manual Training High School	Total
Number of participants.....	87	71	51	34	243
Number of non-participants.....	52	37	41	25	155
Total.....	139	108	92	59	398

TABLE II

Year of Beginning Participation	Number	Percentage
1.....	65	26.8
2.....	81	33.3
3.....	82	33.7
4.....	15	6.2
Total.....	243	100.0

The pupils in the participating group began their participation at every stage of the high-school course after the first semester. In order that we may determine the relation between mean marks before participation and mean marks during participation it is necessary to divide each pupil's marks into (a) marks made before participation and (b) marks made during participation. Table II gives the data regarding the year of entrance into extra-curricular activities. This table brings out the fact that, in general, participation begins rather early in the course and seldom in the senior year.

The next step was to divide the non-participating group so as to use it as an aid in studying the problem. We needed one

portion of the marks of this group to represent a period which corresponds approximately to the period before the participants entered into activities and a second part to represent a period which corresponds approximately to the period when the participants were engaged in activities. Inspection of the data in Table II regarding the year of entrance into activities seems to show that the fairest method is to use the first year's work of the non-participants as the period corresponding to the inactive period of the participants and the remaining three years as the period corresponding to the period of extra-curricular activity. Table II shows that 73 per cent of the participants were active during three years.

In computing the two mean marks for each pupil in both groups an arbitrary value was assigned to each letter used in marking. These values were as follows: E, 9; G, 8; M, 7, P, 6, and F, 5.

TABLE III

	Participants during Period of Participation	Non- Participants during Last Three Years of High-School Course
Correlation of mean marks with Army Alpha Test scores:		
Boys.....	.32 \pm .065	.22 \pm .074
Girls.....	.42 \pm .044	.58 \pm .050
Group.....	.38 \pm .037	.37 \pm .047

Table III shows the correlation, computed by the Pearson product-moment formula, between the Army Alpha Test scores and the mean marks during the period of participation for the participating group and during the last three years of the high-school course for the non-participants. The participating group is made up of 243 students, 157 girls and 86 boys. There are 155 non-participants, 80 girls and 75 boys. The girls give better correlation coefficients in both groups than do the boys; this is particularly true in the case of the non-participating group. Such disturbing factors as after-school employment would probably affect the boys' results more than those of the girls, and in addition there is the general fact of greater variability among boys than among girls. When the whole groups are compared, the coefficients are practically

the same. It seems clear that the factor of extra-curricular activity, on the basis of which these two groups were established, does not affect the correlation between scholarship and native ability.

Table IV shows the correlation between the mean marks before participation in extra-curricular activities and the mean marks during participation for the participating group as well as the correlation between the mean marks of the first year and the mean marks of the last three years for the non-participants. The uniformity of the results for the participants is remarkable. The boys and girls show the same correlation, while the correlation for the whole group is but slightly higher, all three correlations being classed as high. The most plausible interpretation would seem to be that there are no factors, extra-curricular or otherwise, which are upsetting any reasonable relation between a pupil's later performance

TABLE IV

	Correlation		Correlation
Mean marks before participation and mean marks during participation for the participants:		Mean marks of the first year and mean marks of the last three years for the non-participants:	
Boys.....	.71 ± .036	Boys.....	.65 ± .065
Girls.....	.71 ± .027	Girls.....	.71 ± .037
Group.....	.73 ± .019	Group.....	.70 ± .028

and his work in the first year or so of his high-school course. This is confirmed by the correlations shown in Table IV for the non-participants. These coefficients are somewhat smaller than those for the participants, with the exception of the coefficient for the girls, which is the same. When we think of all of the factors—social, economic, and the like—that enter into the life of the pupil in and out of school, it seems rather clear that a correlation approximating .70 for all of the boys and girls studied strongly indicates that native ability supersedes environment in determining scholastic achievement. The fact that in the group of non-participants the boys show a considerably lower correlation than the girls may indicate that environment is a stronger factor with them than with the girls or that there is naturally greater variability among boys than among girls.

In the analysis of the problem it was suggested that the intensely active participants or leaders should be segregated for separate study. To select these it was necessary to define "leader." Of course, this is a relative term, and any definition must, of necessity, be somewhat arbitrary. The following definition was finally adopted: One who participates in at least four extra-curricular activities in a single year and who in addition thereto has, at some time, been elected to an important office, such as president or secretary of an organization or membership in the Student Council, or has represented the school in some form of interschool competition.

Application of this definition to the data brought about the selection of 57 pupils—25 boys and 32 girls—from the group of 243 participants. As a check on the accuracy of this result, the

TABLE V

	Leaders	Athletes
Correlation of mean marks during participation and Army Alpha Test scores.....	.18 \pm .082	.16 \pm .105
Correlation of mean marks before participation and mean marks during participation.....	.52 \pm .065	.63 \pm .065

entire list of participants from one school was sent to the principal of that school with the request that he indicate the names of the fifteen pupils most prominent in extra-curricular activities. His designations included all but two of the thirteen whom our definition had included among the fifty-seven cases. It seems quite fair to assume, then, that the definition is reasonably accurate.

Table V shows the correlations* for these leaders. In the case of the correlation between the Army Alpha Test scores and the mean marks during participation, the coefficient is much smaller for the leaders than for the whole group of participants, in which, of course, these leaders were included, and the size of the probable error indicates that the result is quite unreliable. When the mean marks before participation are correlated with the mean marks during participation, the coefficient is again much smaller for the leaders than for either the whole group of participants or the group of non-participants.

The two coefficients for the leaders seem to indicate that the normal relations which held fairly well for the two whole groups do not hold nearly so well in the case of the leaders. It seems that intense activity, in other words, lowers the correlation between the mean marks before participation and the mean marks during participation.

In the group of 243 participants, there were 39 whose activities were mainly or wholly of an athletic nature, 22 boys and 17 girls. They were members of various teams, and most of them had won the "letter" given by the school. Table V contains the data pertaining to these athletes. In the case of the correlation of the Army Alpha Test scores and the mean marks during participation, the coefficient is small, and the size of the probable error indicates that it is quite unreliable, but the correlation is inserted for such value as it may possess. When the mean marks before participation are correlated with the mean marks during participation, the coefficient is larger for the athletes than for the group of leaders but smaller than for either the whole group of participants or the group of non-participants. Yet it shows a significant correlation between school work done before participation and school work done during participation.

The analysis of the problem showed that its solution necessitates a study of the marks of each rank made by the participants before and during participation and by the non-participants during corresponding periods in order to determine the effect, if any, of participation in extra-curricular activities on the percentage of high, medium, and low marks.

For purposes of convenient reference there is given in Table VI the percentage of the different groups making the various marks together with the median marks and the Army Alpha Test medians for each group. In obtaining the median marks, the values previously indicated were used (E, 9; G, 8; M, 7; P, 6; and F, 5).

In the case of the non-participants the percentage of high marks was .3 less and the percentage of low marks 2.1 more in the last three years than in the first year, and the median mark dropped slightly. A similar situation exists in the case of the leaders for corresponding periods, but the reverse is true of the whole group

of participants and the athletes. The drop in the case of the leaders is due to the girls, since the boys made a higher percentage of high marks, made a lower percentage of low marks, and had a higher

TABLE VI*

	SCHOOL MARKS					MEDIAN MARK	ARMY ALPHA TEST MEDIAN
	E	G	M	P	F		
Participants:							
Before participation:							
Boys	17.6	36.0	34.9	9.9	1.6	7.52	144.3
Girls	20.9	40.2	28.8	9.5	.6	7.75	137.1
Group	19.7	38.7	31.0	9.6	1.0	7.68	140.0
During participation:							
Boys	18.3	36.6	32.8	10.2	2.1	7.69	.....
Girls	25.9	38.0	27.5	7.7	.9	7.79	.....
Group	23.4	37.6	29.3	8.5	1.2	7.75	.....
Non-participants:							
First year:							
Boys	10.5	30.1	44.5	11.6	3.3	7.34	140.0
Girls	20.1	36.6	31.6	10.0	1.7	7.65	133.6
Group	15.6	33.5	37.7	10.8	2.4	7.49	136.8
Last three years:							
Boys	11.2	31.0	38.9	16.4	2.5	7.26	.....
Girls	18.3	36.6	33.2	10.7	1.2	7.58	.....
Group	14.9	33.9	35.9	13.4	1.9	7.47	.....
Leaders:							
Before participation:							
Boys	28.9	38.1	26.7	5.1	1.2	7.88	151.4
Girls	31.5	46.6	19.1	2.8	.....	8.11	139.4
Group	30.4	43.1	22.2	3.7	.6	8.02	146.7
During participation:							
Boys	30.3	38.5	25.0	5.3	.9	8.00	.....
Girls	30.8	39.6	25.4	4.2	.....	8.00	.....
Group	30.6	39.1	25.2	4.7	.4	8.00	.....
Athletes:							
Before participation:							
Boys	10.1	34.2	37.7	15.7	2.3	7.35	136.7
Girls	18.2	42.3	23.3	16.2	.....	7.60	147.5
Group	12.8	36.9	33.1	15.8	1.4	7.47	141.1
During participation:							
Boys	15.7	33.9	33.2	14.4	2.8	7.53	.....
Girls	24.5	36.2	28.5	9.4	1.4	7.80	.....
Group	20.0	35.0	30.9	12.0	2.1	7.60	.....

* The figures in this table, with the exception of the median marks and the Army Alpha Test medians, are percentages.

median mark during the period of participation than during the period of non-participation.

These results should be considered in connection with the Army Alpha Test medians of the various groups. The boy participants

made a median Army Alpha Test score of 144.3, and their median mark rises from 7.52 to 7.69, or .17, and the median mark of the girls, with a median Army Alpha Test score of 137.1, rises only .04, from 7.75 to 7.79. This seems to show that the extent to which the median mark rises during participation depends somewhat on the intelligence median. This is confirmed by examining other groups. The boy leaders have a median Army Alpha Test score of 151.4, and their median mark rises .12 even with their intensive extra-curricular activity. The girl leaders, however, with a median Army Alpha Test score of 139.4 suffer a loss of .11 in median mark. The girl athletes, with a higher Army Alpha Test median than the boy athletes, have a slightly larger increase in median mark than do the boys. This rule also holds for the whole group of participants when compared with the whole group of non-participants and athletes but fails in the case of the whole group of leaders, perhaps because of the comparatively low intelligence median of the girls as compared with the intelligence median of the boys.

One further fact is worthy of notice. The median marks of all groups of participants are almost uniformly higher than those of the non-participants. This, no doubt, is due in part to the scholastic requirements for participation. This does not, however, affect the results to as great a degree as one might assume. The data show that of the 155 non-participants, 86 were eligible scholastically for participation during their entire four years, except, perhaps, for membership in some organization requiring a standard higher than the minimum, and only two of the 155 were never eligible.

CONCLUSIONS

1. The first question raised in the analysis of the problem called for the correlation between the Army Alpha Test scores and the mean marks during participation or a corresponding period for the non-participants. This question is answered in the correlations of Table III. The mean marks of the participants in extra-curricular activities during the period of participation correlate with the intelligence scores to practically the same extent, on the whole, as the mean marks of the non-participants for a corresponding period. On this basis there is little evidence that participation in extra-curricular activities affects scholarship.

2. The second question dealt with the correlation between the mean marks before participation and the mean marks during participation. The answer is found in Table IV. The mean marks of the participants before participation correlate with their mean marks during participation to a slightly greater degree than do the mean marks of the non-participants for corresponding periods. As in Table III, there are variations among boys' and girls' groups, but, on the whole, the correlations in the case of the participants are somewhat higher than the correlations in the case of the non-participants. The difference, however, is hardly sufficient to warrant any conclusion except that, on the whole, participation in extra-curricular activities does not materially affect scholarship. It is quite possible that the higher correlation is due to the higher intelligence median of the participants. The correlation in the case of both groups must be regarded as significantly high.

3. In the case of the intensely active pupils, designated as leaders, the correlation between the mean marks during participation and the Army Alpha Test scores is low, and the correlation of these mean marks with the mean marks before participation is also low in comparison with the correlation in the case of either whole group. The evidence is that leadership is a factor to be considered in the school careers of those who lead. To some it is, perhaps, an incentive to better school work; to others, a hindrance. Or it may be that the Army Alpha Test fails to evaluate adequately qualities making for leadership.

4. In the case of the athletes the correlation between the mean marks during participation and the Army Alpha Test scores is low and unreliable, probably because of the few cases involved. The correlation between the mean marks before participation and the mean marks during participation is high but lower than the correlation in the case of either whole group. It is evident that participation in athletics disturbs to some extent the normal careers of these pupils but not so much as in the case of the leaders.

5. Both boys and girls of the whole group of participants and of the group of leaders and the boys of the athletic group have higher median marks before participation than do corresponding groups of non-participants. This may be due in part to the higher intelligence medians. The only exception would be in the case

of the boy athletes who have a lower intelligence median than do the boys of the non-participating group, but here the median marks are practically the same.

6. Both boys and girls of the whole group of participants and of the group of athletes and the boys of the group of leaders have higher median marks during participation than before participation, while both boys and girls of the non-participating group suffer a slight decrease in the medians for corresponding periods. The increases are probably due in part to the higher intelligence medians of the participating groups and in part to minimum scholarship requirements for participation. It is noticeable that the girl leaders, who form an exception to this rule, do not have so high an intelligence median comparatively as do the boy leaders. The boy athletes, with a low intelligence median as compared with the other groups, show an increase in median mark; this suggests the possible effect of an earnest desire not to be dropped from participation with the consequent social disapproval.

7. In the case of every participating group, with the exception of the girl leaders, the percentage of high grades is higher during participation than before participation, and, with the additional exception of the whole group of boys, the percentage of low grades is lower during participation than before. As in the case of the increase in the median marks, the reasons probably lie in the higher intelligence medians and the minimum scholarship requirements, since the non-participants, with lower intelligence medians, show exactly the reverse condition.

On the whole, the evidence adduced in this investigation points to the thesis that high-school pupils of somewhat more than average intelligence participate in extra-curricular activities, probably as a means of expressing their intelligence beyond the demands of the curriculum, and that such participation does not significantly affect their scholastic standing.

Educational Writings

REVIEWS AND BOOK NOTES

Civics readers for the seventh and eighth grades.—Recent years have seen a great many books published as supplementary readers. The demand for large amounts of material to be used in connection with the different subjects of instruction and especially for material which can be used for silent reading explains the appearance of such publications.

In an attempt to supply proper basic reading material for the junior high school, authors have proceeded with very different assumptions. Some have assumed that it was the period for silent reading, and hence many silent readers of different kinds have appeared. The type of literature common to such readers has been narrative prose, which is supposed to be especially suitable for the adolescent child. Others have merely rearranged old materials on the basis of individual judgment. Only recently the development of the social-studies program has brought forth a type of reader destined to have a pronounced effect on the future of reading in the junior high school grades.

Of the readers appearing in recent months, two volumes¹ by H. C. Hill and R. L. Lyman occupy a place unique in the province of adolescent education. The most striking characteristics of these readers are, first, a type of organization and a kind of material that are especially pertinent to adolescence and the special purposes of the junior high school and, second, an arrangement and classification of material which is at once stimulating to the pupil and helpful to teachers of reading and the social studies.

Book I is built around such fundamental themes as the home, the school, and the finding of enjoyment. In these and similar units are built up, through fact and sentiment, an understanding and an appreciation of the society in which the pupil lives. The organization of the first book is such as to keep constantly in the pupil's thinking that in the experiences offered he is a participant and has a responsibility. Book II is similar to Book I in organization, but the content is selected for a different purpose. The organization is based on the assumption that after the pupil has gained a consciousness of his social relations he is in an appreciative attitude for finding out how he can make his social contribution. The organization of Book II is such that the pupil is led, through various selections of the best literature, to a wholesome interest in the things

¹ H. C. Hill and R. L. Lyman, *Reading and Living*. New York: Charles Scribner's Sons, 1924. Book I, pp. xviii+496; Book II, pp. xxii+518.

which men do. The content will stimulate the imagination and give the pupil an appreciation of the occupations. It is the best possible method of directing the pupil's interest toward vocations and giving him an understanding of his civic obligations.

The reading material of the two books lays an excellent foundation for the generally accepted program of civics and vocations in the junior high school, regardless of where civics may be placed in the program. Each unit is organized in several sections in order to give the pupil a balanced view. Each section contains selections of literature which challenge adolescent interests, express idealism, and arouse a desire for active participation in the life of which the pupil is a part. A valuable feature of the organization is the listing of supplementary materials. A list of twenty books at the beginning of each unit gives the pupil a wide range of references from which to select his supplementary reading. A brief note with each title gives an inkling of what the book contains. It at once guides the pupil and supplies him with a motive for reading. The references, usually at the close of the selections, to specific pages in selected reading material are very helpful.

There are other noteworthy features of the readers. The introductory page at the opening of each unit to be read by the teacher and pupils serves to establish a sympathetic attitude toward the problem to be undertaken. At the beginning of many of the selections are suggestions regarding the way in which they should be read. There are hints as to what the pupil may look for in reading. The suggestions for timing one's rate of reading are useful in improving reading ability. In connection with many of the selections are simple studies to be made by the pupil when he has concluded the reading. Some of these merely involve comparisons within the selection, while some call for comparison with other units. Such exercises afford excellent training in analysis and judgment.

The authors have made a distinct contribution in the selection and organization of worthy reading materials for the seventh and eighth grades. Their books will fill a long-felt need, especially in school systems in which the quantity of reading material is somewhat limited. The books offer a richer and more unique anthology of appropriate literature for classroom use in the grades in question than any publications of the kind.

GEORGE L. HAWKINS

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The treatment of subject-matter in professional schools for teachers.—The history of the normal school shows that there has been considerable difference of opinion and practice among educators with regard to the nature of the subject-matter in the teacher-training curriculum. At one time the liberal-arts ideal, with a strictly academic curriculum, was in favor, and even today the academic tradition has a marked effect on the work of the subject-matter

teacher. A transitional type of organization is found where the goals of sound general education and certain professional purposes are recognized. A third type of normal school emphasizes purely professional studies and in actual practice may have slighted scholarship in subject-matter to some extent. A recent volume^{*} traces the historical development of the various attitudes toward the professional curriculum and suggests applications for the treatment of several fields of subject-matter. The problem is stated as follows:

Should teachers' courses in a specified subject-matter (history, geography, arithmetic, or grammar) be given a special treatment that will differentiate them in thoroughgoing fashion from liberal-arts courses in the same field? If so, what should be the basis and methods of differentiation? [p. 10].

Chapter i is entitled, "The Problem in Its Setting." The author indicates the dominance of the academic tradition in the work of the subject-matter teacher in all types of normal schools. The teacher is in a certain sense the conservator of the racial inheritance of human experience and needs the elements of liberal culture in order to see the subject-matter in a broad perspective in its relation to the experience of the race. There is no reason for dualism of subject-matter and method, of scholarship and professional intelligence, of subject-matter and teaching technique, or of modern theory and established practice.

Thus unconsciously in attempting to respond to the subtler requirements of the service the more enterprising of both "academic" and "professional" teachers in various normal schools of all types have moved from their traditionally aloof positions along lines that tended to converge in an integration of subject-matter and method [p. 48].

Chapter ii is entitled, "The Development of the Idea of the Professional Treatment of Subject-Matter," and chapter iii, "The Present Situation." The author answers explicitly the first question of his problem by showing that the needs of the service and the characteristic pressures upon teachers demand a treatment of the subject-matter that will differentiate it from the liberal-arts courses in the same field. A final chapter, "Some Suggested Applications," gives examples of how such differentiation may be effected in the fields of geography, literature, and arithmetic.

The author has made a careful study and summary of three-quarters of a century of normal-school experience and discussion. The book is rather heavy reading in parts on account of the numerous long quotations and frequent references. The chapters are extensive; the reader would undoubtedly be aided materially by more frequent and concise summary statements. As a whole, however, the volume is a worth-while addition to the history of normal-school education.

CARTER V. GOOD

^{*} Edgar Dunnington Randolph, *The Professional Treatment of Subject-Matter*. Baltimore: Warwick & York, Inc., 1924. Pp. 202. \$2.20.

A British secondary-school chemistry.—In its marked contrast to American textbooks in secondary-school chemistry a recent English publication¹ reveals the great changes in emphasis through which our science textbooks have passed. While the order of topics or chapters is not unlike that found in our chemistry textbooks, the emphasis given to the principles of physical chemistry is strikingly different from our tendency to emphasize the descriptive and technological phases which serve as an introduction to the principles of chemistry.

As stated in the Preface, the book has been written to put into practice certain aspects of chemistry teaching which were emphasized at the Board of Education Vacation Course in Chemistry held at Oxford in 1921. "Stress is laid from the beginning on the principles of physical chemistry, and, although at first sight it may appear inappropriate or impracticable to introduce beginners to the ionic theory or reversible reactions, yet the experience of the last two years has convinced the author of the value of this procedure."

The subject-matter is presented in the form of 112 experiments with certain descriptive matter following each. Unfortunately, from our point of view, the descriptive material is largely concerned with pure chemistry, containing, as it does, but little reference to the occurrence, manufacture, and use of the various chemicals. Only about one hundred pages of the book furnish the student with reading material.

There are no questions or exercises such as are found in our textbooks, except the rather limited number of mathematical problems at the end of each chapter. These, as well as the entire presentation, bring into the course little everyday chemistry. The method of experimental attack and the emphasis on fundamental principles, however, make the book one which our chemistry teachers should carefully examine.

CHARLES J. PIEPER

The present status of vocational education.—With the passage of the Smith-Hughes Act on February 23, 1917, this country committed itself to a national program of vocational education. By the provisions of this law the federal government will match dollar for dollar, up to a total of seven million dollars (1925-26), the appropriations of the several states for the salaries of teachers engaged in a certain type of vocational education. The annual reports to Congress of the Federal Board for Vocational Education present the status in the different states of that part of vocational education which comes under the Smith-Hughes Act. These reports, in accounting for the expenditures of federal funds, present material that is of interest and concern to educators generally. In addition to the latest of these reports, the Federal Board for Vocational Education has issued a bulletin² which contains far more interesting

¹ O. J. Flecker, *A School Chemistry*. New York: Oxford University Press, American Branch, 1924. Pp. viii+238. \$1.20.

² *Yearbook of the Federal Board for Vocational Education*, 1923. Washington: Federal Board for Vocational Education, 1924. Pp. xiv+444.

data and which, no doubt, provides a truer survey of the general situation of vocational education than has thus far been presented.

J. C. Wright, director of the Federal Board for Vocational Education, states in the Foreword:

In past years the Federal Board for Vocational Education has found it impossible, under the time limits imposed upon its staff in the preparation of its annual report to Congress, to deal adequately with outstanding developments during the year in the fields of vocational education and civilian vocational rehabilitation. State reports supplementary to the regular annual statistical and financial reports required to be submitted on September first each year have contained data and descriptive accounts of developments in the several states, which could be only partially summarized in the board's report to Congress, required to be submitted each year. . . . The vocational yearbook is planned to provide more adequately for the presentation of this material, indicating developments within the several states, and to provide also for the presentation of special studies in the several fields of vocational education and civilian vocational rehabilitation.

Although a survey of what is happening in vocational education throughout the United States naturally results in a vast amount of information of various kinds, the Federal Board for Vocational Education has so well organized the material that the report is an interesting and concise publication. It states what is taking place with regard to agricultural, industrial, home economics, and commercial education and civilian vocational rehabilitation in each state accepting federal funds for the carrying on of a forward-looking program in the respective types of training. The introductory chapter, "Our National Program for Vocational Education," presents the type of overview which properly directs one's thinking. The paragraphs concerning vocational work in foreign countries are more in the form of news items and are not quite in keeping with the rest of the bulletin. The graphs and charts supplementing the reading matter are well conceived and clearly presented. All persons engaged in any phase of vocational education will find this publication of vital interest. Section I presents the type of information with which the general students of education are most concerned.

ROBERT WOELLNER

The college course in education made practical.—Professors of education frequently fail to apply to the conduct of their own classes the pedagogical principles which they expound. Thus it happens that, although an instructor in educational measurements urges his students to be objective and mathematically precise in rating school products, he may be guilty of the most flagrant malpractice in measuring the work of his own classes; in spite of the fact that an instructor in methods argues for the development of pupil initiative, he may proceed to lecture without variation and tacitly, if not overtly, discourage all attempts at independent thinking on the part of his own students. If the study of education is to gain any respect as a science, theory and practice must be more closely related. That a serious attempt has been made in this

direction is evidenced in the addition of another exercise book¹ to the Educational Problem Series, edited by G. M. Whipple.

The book is to the study of education what the case book is to the study of law. In educational terminology, it would probably be called a "project-problem book." The purpose of the authors is to give the student of education practice in the solution of typical classroom problems. In pursuance of this objective the authors have selected sixty-eight problems representing difficulties which have arisen in genuine teaching situations. In this way the prospective teacher encounters concrete perplexities which are certain to confront him when he begins the task of instructing high-school students. Some evidence of the scope of the problems appears in the following list of topics: aims of education, the teacher, the pupil, discipline, extra-curricular activities, school morale, classroom technique, training in habits of study, the curriculum, student rating, securing a position, salaries, and professional duties and responsibilities.

The book is distinctive, not only for its concreteness of detail but also for the systematic technique of individual and co-operative research which it develops. In the Introduction, explicit steps in arriving at solutions of the problems are suggested for both individual and group study. Thereafter, in connection with each of the sixty-eight problems a definite procedure is outlined. One of the inevitable by-products of the use of a book of this type is the inculcation of a method of attacking and solving educational problems which will give the student a large measure of independence in practical school work.

Mention should be made of some features which make the book of special value to the teacher of college courses in education. A list of books and articles constituting a minimum working library is included in the Introduction. The book is so constructed that each sheet is detachable and is punched for filing in a standard notebook cover. This mechanical feature, combined with the wide variety of topics covered, makes it possible to use the book in several different courses in education. As a result, whether an instructor teaches a course in measurements, methods, or psychology, he will find this book of great value as a source of practical exercises.

If there is cause for criticism, it would probably be directed against the overemphasis on some topics and the neglect of others. For example, four problems are presented for the topic "the curriculum"; three problems deal with the applications of adolescent psychology, while seven problems are devoted to the topic of discipline. In another section, training in reflective thinking is given the same prominence as such problems as the correction of daily papers and the construction of lesson plans. It is not improbable that a student of education would receive a wrong conception of the relative importance of educational issues if he made use of the book just as it is. This difficulty is not serious, however, because as already pointed out, the book is so

¹ J. B. Edmonson and Raleigh Schorling, *Problems of the High-School Teacher*. Bloomington, Illinois: Public School Publishing Co., 1924. 68 problems.

constructed as to be adaptable to a variety of courses and instructional techniques. A discreet instructor can obviate any errors that might arise from the faulty distribution of attention to the various problems of education.

This exercise book is pre-eminently a contribution to the technique of college instruction—a field that is greatly neglected. As a practical teaching device, embodying the best educational doctrine, it should do much to accentuate the growing tendency to emphasize the practical aspects of pedagogical theory.

UNIVERSITY OF MICHIGAN

HOWARD Y. MCCLUSKY

A two-year course in French.—The authors of a new two-year course in French¹ propose to teach pupils to read easily—that is, without translation—any ordinary French text at the end of the first two years of study and to translate French into idiomatic English. This double aim governs the construction of the book, which cannot be classified either as a direct-method text or as a grammar-translation text.

The book consists of a section on pronunciation, a series of fifty-four lessons, a review of the whole field of grammar, a vocabulary of approximately thirty-five hundred words, and an index. The typical lesson begins with the "text," divided into *leçon à expliquer* and *lecture*. The *leçon à expliquer* is usually in the form of questions and answers in French, designed to develop some grammatical principle. On the same page, parallel to the *leçon* is an English presentation of the grammar. When the *leçon* is long enough to serve as reading material, there is a passage of connected French (*lecture*), also illustrative of the grammatical principle under consideration. A section entitled, "Grammar Notes," deals with exceptions and related matters. The assimilative material which completes the lesson offers one or two exercises of the direct-method type but calls also for translation. There are suggestions for original compositions. Twenty-six lists of review questions in English are included in the lessons.

The vocabulary is complete and well chosen. All new words are introduced in context. It would be quite possible for the pupil to acquire the larger part of the vocabulary of each new lesson directly, without the intervention of the English symbol; the authors, indeed, expect him to do so. The long list of English sentences for translation which complete each lesson will, however, tend to establish the translation habit. It is doubtful whether the direct acquisition of new words is of any value to the pupil if he is obliged to think of them henceforth in terms of their English equivalents.

The *lectures* are interesting and well written. Some of them contain valuable information about France and its people.

The treatment of verbs is complete and includes a welcome discussion of the differences in use between the imperfect and the past indefinite tenses and between the past definite and indefinite.

¹ Henri F. Micoleau and Harriet McLellan, *First Two Years of French*. Chicago: Benjamin H. Sanborn & Co., 1924. Pp. xii+564.

The problem of pronunciation is phonetically presented in an introductory chapter. The words in the general vocabulary are respelled in phonetic symbols. It is to be regretted that there are no drills and that the question of pronunciation is not referred to in the main body of the text.

This book will appeal to those teachers who, while adhering to the grammar-translation method, are ready to call in some of the resources of the direct method to enliven the recitation and to stimulate interest in the reading of French.

MARGERY ELLIS

Self-improvement in studying, thinking, and reading.—Fifteen years of educational campaigning in behalf of supervised study still finds us far from a realization of the major purposes of the movement to improve the study habits of pupils. The supervised-study technique has steadily made progress, especially in secondary schools, although in some schools it has meant little more than a changing of the scene of study from the home to the classroom. On the other hand, the plan is in successful operation in a large number of high schools, and the results are all that could be expected.

A recent book¹ by a well-known educator is designed to assist secondary-school and college students in the understanding of their own mental processes and in the forming of successful mental habits. The full title of the book is *The Mind at Work in Studying, Thinking, and Reading*. It consists of seven chapters which contain valuable source material for assimilative reading, exercises for training in proper study habits, and supplementary reading projects. Chapter i deals with "The Nature of Study and of Study Habits." The relations of studying, thinking, and reading are shown; the nature of study is discussed; and the technique of studying is explained. Chapter ii deals with "Useful Habits of Work in Library and School," chapter iii with "Thinking and Learning to Think," chapter iv with "Reading to Understand and Remember," chapter v with "Reading as an Active Process," chapter vi with "Evaluating What We Read and Hear," and chapter vii with "Reading for Enjoyment."

The Mind at Work may profitably be used in any one of four ways: (1) It may be substituted for one of the several classics which constitute a year's work in most English classes. (2) It may supplement the customary study of essays, orations, and addresses. (3) It may be used as a basic textbook in special courses designed to introduce students to effective methods of study. (4) It may be taken up once a week throughout a semester as the basis of direct lessons in the mental activities necessary for successful study both within school and without. It is hoped that departments of English and of social sciences especially will find the training here outlined a valuable ally [p. 4].

In addition to furnishing in very convenient form carefully chosen materials on the mental activities of studying, thinking, and reading, the book contains the clearest analysis of the difficulties encountered by students in study and

¹ R. L. Lyman, *The Mind at Work*. Chicago: Scott, Foresman & Co., 1924. Pp. 350. \$1.60.

the best exercises for providing practice in the application of the principles of study of any treatise in the field. While it is intended primarily as a guide-book for students when they assume responsibility for the direction of their own mental efforts, it is, indeed, much more. It is a contribution to the literature of supervised study which will help teachers to meet their students on a mental level of mutual understanding and appreciation of the problems involved in effective and ineffective studying, thinking, and reading. The book should find a place in the library of every junior high school, senior high school, and college teacher.

W. C. REAVIS

Accounting for the maladjusted pupil.—Teachers in public schools must continually deal with maladjusted or unsocial children. Many teachers realize that it is not enough to teach such children how to memorize and how to obey, but they are baffled in the attempt to understand the personal lives of the children. The literature on the psychology of personality is so overwhelming, the vocabulary so technical, and the classifications so rigid and exacting that the ordinary teacher abandons the attempt to master the usual type of text offered.

The author of *The Psychology of the Unadjusted School Child*,¹ recognizing this situation, states that he has carefully avoided the use of terms that would have little or no meaning for the average reader and that he has tried to put essential facts into simple English. Indeed, the author thinks that he has probably overdone the matter in his effort to secure simplicity but cites the urgent demand for a simple exposition of the facts and principles in the field of abnormal psychology as his justification for erring on the side of oversimplification.

The author deals with the individual's struggle with reality and with the ability of the individual to make social adjustments. In the struggle with reality every individual either meets the issues squarely or compromises more or less. Compromises with reality are of two types: the one which upholds the ego either through forgetting, ignoring, or distorting reality and the one which surrenders the ego through anxiety, fear, or acknowledgment of failure.

The discussion of the compromise types is illuminated by a wealth of concrete cases showing the psychological mechanisms of day-dreams, phantasies, infantile fixations, inferiority complexes, and rationalizations. These examples are treated by the author in such a manner as not only to develop knowledge of the mechanisms involved in these abnormal traits but also to indicate to teachers how the mental deviations and signs of deviation arise, how they may be recognized at different stages, and the proper remedial measures to be taken in order to prevent the individual from becoming extremely unsocial. The

¹ John J. B. Morgan, *The Psychology of the Unadjusted School Child*. New York: Macmillan Co., 1924. Pp. xii+300.

concluding chapters, about one-tenth of the total content, deal with the types of children incapable of appreciating reality either because of inferior intelligence or because of defective social judgment.

The book is written primarily not for teachers of defective classes but for teachers of normal classes. Every normal class contains children with varying degrees of ability for social adjustment.

The author takes an encouraging view of the possibility of directing the development of personality. Too often books of this type leave the teacher with a fatalistic attitude toward social adjustments, with the idea that heredity is an unmodifiable factor of success or failure.

In dealing with cases, it is crucial, says the author, "to see that the adjustment that is made as a result of conflict is one that will immediately benefit the individual. . . . Life is one grand, glorious struggle which every normal individual enjoys as long as the struggle does not result in the capitulation of the ego. To prove that we are the masters of our environment, that the difficulties of life have only served to prepare us the better for the next conflict—that is life" (p. 31).

An interesting thesis advanced by the author is that the successful adjustment of individuals to society is largely dependent on what is commonly termed will-power and that will-power is not a mysterious entity, fashioned by hereditary influences, but rather an ability which is largely the result of training. A strong will, says the author, "is nothing but a name for the habit of success, and a weak will is a name for the habit of failure" (p. 65).

It remains to point out that probably the outstanding contribution of this volume is the series of practical hints for teachers given in each chapter. For example, the chapter entitled, "Face-to-Face Struggle with Reality," offers the following practical suggestions:

1. Let the child use his own initiative; do not suppress independent effort. Help him only when necessary. Do not let him blindly follow your suggestions.
2. If a child is stubborn, let him work his wilfulness out instead of tempting him to resist your disciplinary system.
3. Make sure that the child gets no social approval as a result of blustering [p. 72].

The last chapter presents an outline for a program of instruction in mental hygiene which summarizes in practical form the teachings of the volume.

I. M. ALLEN

A source book for physical nature study.—One of the chief criticisms of science in the junior high school has been the lack of organization and the failure to adapt the subject-matter to the needs, interests, and capacities of children of junior high school age. The University of Chicago Nature Study Series has been prepared to meet the need for a sequential course in science, and the latest addition¹ to the series makes a very definite contribution to the

¹ Elliot Rowland Downing, *Our Physical World*. Chicago: University of Chicago Press, 1924. Pp. xviii+368. \$2.50.

literature of science teaching. In this volume the author brings together hitherto unavailable source material which will be invaluable to the teacher of elementary physical science or physical nature study.

The subject-matter of the book is organized around toys and familiar home appliances. In many cases detailed directions are given for the construction of toys or references are given to other books in the series where directions may be found. The chief value of the book, however, lies in its presentation of the background which makes the principles and applications of science meaningful. The book includes a treatment of the following topics: "The Universe in Which We Live," "The Earth's Rock Foundations," "The Conquest of the Air," "Air and Water as Servants of Man," "The Sling, Bow, and Other Weapons," "Fire and Its Uses," "The Nature of Matter," "Steam and Gasoline Engines," "Discoveries in Magnetism and Electricity," "Electrical Inventions," "Radio Communication," "Devices for Seeing Better, Farther, and Longer," "Cameras and Picture-making," "The Home-made Orchestra," and "Some Simple Machines."

The volume will be a boon to the inexperienced teacher of science, since it furnishes a wealth of supplementary material which contains answers to most of the questions which come up in connection with the class discussions. It should also be of great interest to the general reader because of its simple, non-technical account of modern discoveries and inventions in science. The major part of the book can be readily understood by the brighter pupils in the junior high school and can well be used as supplementary material in the science courses.

WILBUR L. BEAUCHAMP

Progressive tendencies in the administration of teacher-training institutions.—Members of the teaching profession have often felt chagrin because their chosen calling is not so universally respected as the professions of law and medicine. However, a question may be raised as to whether the teaching profession as a whole and teacher-training institutions have worked as consistently to inspire public confidence and respect as have the professions of law and medicine. No longer may an individual begin the practice of law with only the training acquired as an apprentice in a law office. The old type of general medical practitioner who acquired most of his knowledge through actual experience, which often proved rather costly to his patients, has given way to the highly trained and specialized physician.

Teacher-training institutions have been slow in raising their standards and many times have confused their aims with the work done in the traditional college. There is probably no more reason to expect the college of liberal arts to produce a good teacher than to expect it to produce an efficient lawyer or a competent physician. A new book¹ points the way to improvement in the

¹ Walter D. Agnew, *The Administration of Professional Schools for Teachers*. Baltimore: Warwick & York, Inc., 1924. Pp. 262. \$2.20.

administration of the professional schools for teachers and indicates that the whole teaching profession will profit by such improvement.

The opening chapter sets forth two fundamental principles. First, on account of the magnitude of the task involved and in order to have a unified program, the state should own and control the schools which assume responsibility for the professional preparation of its teachers. Second, professional schools for teachers are more efficient when they are devoted exclusively to the preparation of teachers. The teachers' college which covers four years of work beyond the high school has become a practical and professional necessity. Such schools may promote uniformity and standardization by adopting the administrative organization and the titles of the administrative officers which have for a long time been used in the college of liberal arts. The history of the past seems to indicate that the chief executive officer may well be a man with successful experience in administrative positions in the public school system. The various teacher-training schools of a state should be closely connected with each other and with the state department of education so as to provide a unified program of public education within the state. The chief executive should not be hampered by specific statutes or by-laws which give his duties in detail, although a printed list of rules which express in a broad way the functions of the chief executive is desirable. For the purpose of promoting co-operation, the teaching staff should have a part in framing the policies of the institution. Beneficial results are secured by the active participation of the students in the disciplinary and social control of the school.

Each chapter introduces its topic by a historical treatment of the problem. A concise summary at the end of each chapter is a valuable aid to the reader in organizing the content. A final summary chapter presents certain guiding principles and general conclusions. In the bibliography the author lists separately the source materials and the references dealing with history, theory, and biography. The book is decidedly worth while for those interested in the administration of professional schools for teachers.

CARTER V. GOOD

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